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TOWN OF LOOMIS

COMPREHENSIVE GENERAL PLAN UPDATE

FINAL ENVIRONMENTAL IMPACT REPORT

State Clearinghouse No. 2000012026

May 2001

Final Environmental Impact Report for the Town of Loomis General Plan Update

State Clearinghouse No. 2000012026

Prepared for:
Town of Loomis
P.O. Box 1327
Loomis, California 95650

Contact:
Kathy Kerdus, Planning Director
(916) 652-1840

Prepared by:
Rincon Consultants, Inc.
1530 Monterey Street, Suite D
San Luis Obispo, California 93401

May 2001

rincon

Town of Loomis General Plan Update Final EIR

Table of Contents

Page

A. Introduction to Final EIR F-1

B. Comments and Responses to the Draft EIR F-1

C. Revisions To Proposed Land Use Pattern Following Public Comments F-55
1. Description of Differences from Proposed Project Examined in Draft EIR F-55
2. Difference in Anticipated Impacts F-56

Final EIR Text (shows revisions from Draft EIR):

Executive Summary ES-1

1.0 Introduction 1

2.0 Project Description 3
2.1 Redesignation of Land Within the Town 2
2.2 Buildout Potential 8
2.3 Other Physical Changes Under the General Plan 10
2.4 Proposed Project Goals and Objectives 11

3.0 Impact Analysis
3.1 Aesthetics 12
3.2 Air Quality 17
3.3 Biological Resources 22
3.4 Cultural Resources 36
3.5 Geological Processes 39
3.6 Hazardous Materials 44
3.7 Hydrology 49
3.8 Land Use 58
3.9 Noise 63
3.10 Public Services 75
3.11 Transportation and Circulation 85
3.12 Utilities 106

4.0 Long-Term Impacts
4.1 Growth-Inducing Impacts 110
4.2 Significant Irreversible Changes 110
4.3 Short-Term Uses Versus Long-Term Productivity 110

5.0 Alternatives
5.1 Alternative 1: No Project—Buildout Under Existing General Plan 111
5.2 Alternative 2: Staff Recommendations and Citizen Requests 112
5.3 Alternative 3: Staff Recommendations Only 118
5.4 Alternative 4: Maximum Development Scenario 119
5.5 Environmentally Superior Alternative 123
6.0 References and Prepares 125

List of Figures

Figure 1 Location Map 5
Figure 2 Land Use Diagram 6
Figure 3 Areas of Change 7
Figure 4 Geology Map 40
Figure 5 FEMA 100-Year Flood Plain 53
Figure 6 Existing Noise Contours 64
Figure 7 Projected Noise Contours 68
Figure 8 Existing Traffic Volumes 87
Figure 9 Existing Traffic Volumes at Buildout 95
Figure 10 Land Use Alternatives 117

List of Tables

Table A Differences from Land Use Pattern Examined in Draft EIR F-55
Table B Summary of Proposed Land Uses and Residential Potential (April 2001) F-56
Table C Differences in Impacts Due to Proposed Changes F-57
Table ES-1 Summary of Project Environmental Impacts, Mitigation Measures, And Residual Impacts ES-5
Table 1 Summary of Proposed Land Use Designations 8
Table 2 Maximum Buildout Potential Under Draft General Plan 9
Table AQ-1 Sacramento Valley Airflow Patterns 16
Table AQ-2 Ambient Air Quality Standards 17
Table AQ-3 Attainment Status of the Sacramento Valley Air Basin 18
Table AQ-4 Placer County APCD Significance Thresholds 19
Table BIO-1 Planning Area Habitat and Sensitivity 22
Table BIO-2 Definition of Special Status Species 25
Table BIO-3 Special Status Species Potentially Occurring in the Town of Loomis 27
Table BIO-4 Wildlife Species Observed in the Planning Area 28
Table LU-1 Summary of Potential Impacts of Land Use Redesignations 61
Table N-1 Existing Traffic Noise Levels 65
Table N-2 Maximum Allowable Noise Exposure 65
Table N-3 Noise Standards for Short Duration Events Near Residential Areas 66
Table N-4 Projected Traffic Noise Levels at Cumulative Regional Buildout 69
Table PS-1 Planning Area School Capacity and Enrollment 77
Table PS-2 Park and Recreational Facilities Accessible to the Town of Loomis 80
Table PS-3 Projected Enrollment at Buildout 82
Table CIRC-1 Existing Roadway Segment Operations 88
Table CIRC-2 Existing Peak Hour Intersection Operations 89
Table CIRC-3 Existing Deficiencies 91
Table CIRC-4 Future Roadway Segment Operations at Cumulative Buildout 96
Table CIRC-5 Primary Future Deficiencies (Without Improvements) 97
Table CIRC-6 Cumulative Roadway Segment Operations (With Improvements) 104
Table ALT-1 Comparison of Existing General Plan Buildout to Draft General Plan 111
Table ALT-2 Alternative Incorporating Staff Recommendations and Citizen Requests 113
Table ALT-3 Alternative Incorporating Staff Recommendations Only 118
Table ALT-4 Alternative Recent Citizen Requests 119
Table ALT-5 Impact Comparison of Alternatives to Proposed Project 123

FINAL ENVIRONMENTAL IMPACT REPORT

A. INTRODUCTION TO FINAL EIR

Under CEQA, a Final Environmental Impact Report is comprised of the Draft EIR, any comments received in public testimony pursuant to the Draft EIR, and the responses to these comments. In some cases, the responses to the public comments have resulted in minor changes to the text of the Draft EIR. These changes are noted in the body of the responses, and reflected in the revised text of the EIR analysis. The analysis itself, which in all other respects is the same as the Draft EIR, follows this introductory section of the Final EIR.

Since the time of the Draft EIR's publication, the General Plan process has continued, with several public workshops. Through this process, several minor changes to the proposed land use pattern contemplated under the updated General Plan have been suggested. Following the section of Comments and Responses to the Draft EIR, these changes are briefly described, and their effect on the analysis contained in the Draft EIR will be explained.

This document is differentiated from the revised Draft EIR text by the pagination, which is prefaced with an "F" to indicate its status as a Final EIR. The revised draft EIR text retains its original pagination scheme. Text that has been revised from the Draft EIR is underlined, and deleted text is indicated in strikeout type. All changes are indicated in the margin adjacent to the change with a vertical line.

B. COMMENTS and RESPONSES to the DRAFT EIR

The letters in this section of the Final EIR include the public comments on the Draft Environmental Impact Report (DEIR) for the proposed General Plan Update. The DEIR was circulated for a public review period that began April 28, 2000 and concluded on June 12, 2000. The comment letters included herein were submitted by public agencies and private citizens.

Each comment that the Town received is included in this section. Responses to these comments have been prepared to address the environmental concerns raised by the commentors and to indicate where and how the DEIR addresses pertinent environmental issues. Any changes made to the text of the Draft EIR correcting information, data or intent, other than minor typographical corrections or minor working changes, are noted in the Final EIR as changes from the Draft EIR.

The comment letters have been numbered sequentially, and each issue within a comment letter, if more than one, has a letter assigned to it. References to the responses to comments identify first the letter number, and second, the comment letter (6A, for example).

Commentors on the Draft EIR included public agencies, organizations, and private individuals. They are listed below in the following order: state and federal agencies, regional and county agencies, private organizations, and citizens.

Commentor

1. Terry Roberts, Senior Planner, State Clearinghouse, State of California, Governor's Office of Planning and Research
2. Terry Roberts, Senior Planner, State Clearinghouse, State of California, Governor's Office of Planning and Research
3. Jerry Pulverman, Chief, State of California, Department of Transportation
4. Larry Eng, Assistant Regional Manager, State of California, Department of Fish and Game
5. Andrew Darrow, P.E., Development Coordinator, Placer County Flood Control and Water Conservation District
6. Chief Struble, Loomis Fire Protection District
7. Michael Davis, Fire Chief, Penryn Fire Protection District
8. Paul Bollard, President, Bollard & Brennan, Inc.
9. Elizabeth Hutchinson, Blair Leasing Company, Inc.
10. Elizabeth Hutchinson, Blair Leasing Company, Inc.
11. Ferrall M. Pierce
12. Gretchen Crespillo, Psychic Consultant
13. Jean Wilson
14. Jean Wilson

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse

Gray Davis
GOVERNOR

Steve Nissen
ACTING DIRECTOR

June 13, 2000

Letter 1

Kathy Kerdus
City of Loomis
6140 Horseshoe Bar Road, Suite K
Loomis, CA 95650

RECEIVED
JUN 14 2000
TOWN OF LOOMIS

Subject: Town of Loomis General Plan Update
SCH#: 2000012026

Dear Kathy Kerdus:

1A

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on June 12, 2000, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Terry Roberts

Terry Roberts
Senior Planner, State Clearinghouse

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
916-445-0613 FAX 916-323-3018 WWW.OPR.CA.GOV/CLEARINGHOUSE.HTML

Letter 1

COMMENTOR: Terry Roberts, Senior Planner, State Clearinghouse, State of California, Governor's Office of Planning and Research

DATE: June 13, 2000

RESPONSE:

The commentor states that he has distributed the Draft EIR to selected state agencies for review and acknowledges that the Town has complied with the State Clearinghouse review requirements for draft environmental documents.

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse

Gray Davis
GOVERNOR

Steve Nissen
ACTING DIRECTOR

June 21, 2000

Letter 2

RECEIVED
JUN 23 2000
TOWN OF LOOMIS

Kathy Kerdus
City of Loomis
6140 Horseshoe Bar Road, Suite K
Loomis, CA 95650

Subject: Town of Loomis General Plan Update
SCH#: 2000012026

Dear Kathy Kerdus:

The enclosed comment (s) on your Draft EIR was (were) received by the State Clearinghouse after the end of the state review period, which closed on June 12, 2000. We are forwarding these comments to you because they provide information or raise issues that should be addressed in your final environmental document.

2A The California Environmental Quality Act does not require Lead Agencies to respond to late comments. However, we encourage you to incorporate these additional comments into your final environmental document and to consider them prior to taking final action on the proposed project.

Please contact the State Clearinghouse at (916) 445-0613 if you have any questions concerning the environmental review process. If you have a question regarding the above-named project, please refer to the ten-digit State Clearinghouse number (2000012026) when contacting this office.

Sincerely,

Scott Morgan for T.R.

Terry Roberts
Senior Planner, State Clearinghouse

Enclosures
cc: Resources Agency

FAXED 6/28/00 B

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
916-445-0613 FAX 916-323-3018 WWW.OPR.CA.GOV/CLEARINGHOUSE.HTML

Document Details Report
State Clearinghouse Data Base

SCH# 2000012026
Project Title Town of Loomis General Plan Update
Lead Agency Loomis, City of

Type EIR Draft EIR

Description Town has been working on a General Plan Update with a 10 person representative Steering Committee, then the Planning Commission. Pages 22-33 note areas of land use change. Figure 6 shows Circulation Element proposals. The Housing Element has only been reformatted with this update.

Lead Agency Contact

Name Kathy Kerdus
Agency City of Loomis
Phone (916) 652-1840 **Fax**
email
Address 6140 Horseshoe Bar Road, Suite K
City Loomis **State** CA **Zip** 95650

Project Location

County Placer
City Loomis
Region
Cross Streets Entire Town
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways I-80
Airports
Railways Union Pacific
Waterways Secret & Sucker Ravines, Antelope Creek
Schools Loomis Elementary; Del Oro High School
Land Use Complete General Plan Update

Project Issues Archaeologic-Historic; Air Quality; Agricultural Land; Aesthetic/Visual; Drainage/Absorption; Economics/Jobs; Fiscal Impacts; Flood Plain/Flooding; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Septic System; Sewer Capacity; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation

Reviewing Agencies Resources Agency; Department of Conservation; Department of Fish and Game, Region 2; Office of Historic Preservation; Department of Parks and Recreation; California Highway Patrol; Caltrans, District 3; Department of Housing and Community Development; Department of Food and Agriculture; Integrated Waste Management Board; Regional Water Quality Control Bd., Region 5 (Sacramento); Department of Toxic Substances Control; Native American Heritage Commission; State Lands Commission

Date Received 04/27/2000 **Start of Review** 04/28/2000 **End of Review** 06/12/2000

Note: Blanks in data fields result from insufficient information provided by lead agency.

Letter 2

COMMENTOR: Terry Roberts, Senior Planner, State Clearinghouse, State of California, Governor's Office of Planning and Research

DATE: June 21, 2000

RESPONSE:

The commentor notes that several letters were received after the close of the comment period, but that the Lead Agency may respond to them nevertheless. No response to this letter is required.

STATE OF CALIFORNIA-BUSINESS, TRANSPORTATION AND HOUSING AGENCY GRAY DAVIS, *Governor*

DEPARTMENT OF TRANSPORTATION
DISTRICT 3, SACRAMENTO – MS 41
P.O. BOX 942874
SACRAMENTO, CA 94274-0001
TDD Telephone (530) 741-4509
Telephone (619) 327-3859
FAX (916) 323-7669

Letter 3

RECEIVED
JUN 21 2000
TOWN OF LOOMIS

June 19, 2000

LPLA0074
Town of Loomis General Plan Update
03PLA80 PM 8.130 SCH:2000012026

Kathy Kerdus
Town of Loomis
Planning Department
6140 Horseshoe Bar Rd.
P. O. Box 1327
Loomis CA 95650

Dear Ms. Kerdus:

Thank you for the opportunity to comment on the Town of Loomis General Plan Update. Our comments are as follows:

3A • Part IV, C*irculation,* Figure 6-*Future Roadway-Related Improvements.* A statement on the preservation of right-of-way for all the areas on the map identified for improvements such as the widening Sierra College Boulevard, Horseshoe Bar Road, King Road etc. should be included in the General Plan Update.

3B • Interstate 80 (I80) should be included in figures, and tables and operations discussion as a key roadway for the Town of Loomis on pages: 93-*Table CIRC-1*, 104-*Table CIRC-4*, 112-*Table CIRC-6*. In addition, Figure 8 mentioned on page 93 is missing.

3C • Page 97, *Table CIRC-2.* For the interchange/intersections listed, in addition to the average delay numbers provided, analyses on the delay and Level of Service of the individual legs of the intersection should be performed. This will provide a more complete picture of the intersection operations.

3D • Page 101, *Proposed Roadway Modifications under the General Plan Update.* The reconstruction of the Horseshoe Bar Interchange should be added, and should include provisions for pedestrians, and bike lanes.

3E • Page 103, Figure 9 *"Future (2020) Average Daily Traffic Volumes.* The I80 average daily traffic volumes should be shown.

• The General Plan should address the following policies and objectives:

3F → The preservation of right-of-way for the future expansion of I80 and associated interchanges with the local street system. Our system planning indicates a need on I80, through the City of Loomis, for an eight-lane facility for the next 20 years, as well as for an ultimate need for a facility.

FAXED 6/20

3G → Development of a local transportation system which minimizes the use of I80 for local trips. The primary objective of the State Highway System is to accommodate the interregional and interstate movement of people and goods. Local trips create inefficiencies for the State Highway System.

3H → The shared responsibility of the City of Loomis and State for capacity improvements to I80 relative to the importance of the freeway to the Loomis residents and economy.

3I • Please provide Caltrans with a copy of the Master Drainage Plan when complete. There was not enough information in the documentation submitted to allow a detailed assessment of drainage.

3J • In the documentation submitted, we did not see any plans for a Municipal storm drain system. Will this be included in the General Plan? What percentage change in impervious area contributing to waterways is anticipated under the General Plan (not just the area immediately adjacent to creeks, Federal Insurance Rate Map 100-year event)?

3K • Any work in the State right of way would require a Caltrans Encroachment Permit. Please contact Rich Jones, Chief, Office of Permits, Caltrans District 3, at (530) 741-5374 for further assistance with this process.

3L Please provide Caltrans with a copy of the Master Drainage Plan of any future actions, conditions, and mitigation regarding this project. If you have any questions, please contact Rebecca Sanchez at (916) 324-6634.

Sincerely,

for JEFFREY PULVERMAN, Chief
Office of Regional Planning

Attachment

c: Kate Schulte

RS/rs

Letter 3

COMMENTOR: Jerry Pulverman, Chief, State of California, Department of Transportation

DATE: June 19, 2000

RESPONSE:

Response 3A

The comment pertains to the General Plan, and not the EIR for the General Plan. No response is required, since it does not comment on the contents of the Draft EIR.

Response 3B

The commentor suggests the inclusion of Interstate 80 on several figures and tables within the Draft EIR. The Figure 8 was included in the Draft EIR on page 93, and is again included in the Final EIR. The following projected 2020 traffic volumes on Interstate 80 are based upon the City of Rocklin regional travel model, which includes build-out of Twelve Bridges and Bickford Ranch, and a majority of Sunset Ranchos. This model predicts 2020 traffic volumes on Interstate 80 will be:

West of Sierra College
- 93,000 ADT (existing condition—Caltrans, June 2000)
- 119,000 ADT with existing General Plan
- 134,000 ADT with proposed General Plan

Between Sierra College and Horseshoe Bar
- 87,000 ADT (existing condition—Caltrans, June 2000)
- 119,000 ADT with existing General Plan
- 135,000 ADT with proposed General Plan

East of Horseshoe Bar
- 86,000 ADT (existing condition—Caltrans, June 2000)
- 115,000 ADT with existing General Plan
- 118,000 ADT with proposed General Plan

This information will be reflected in the appropriate tables of the Circulation analysis. However, it does not change the impacts or conclusions described in the EIR.

Response 3C

The level of detail requested in the comment is appropriate for a Project Study Report or equivalent, not the General Plan.

Response 3D

The reconstruction of the Horseshoe Bar Interchange will be included in the final version of the General Plan. The Town Council conceptually reconfirmed these improvements on November 14, 2000.

Response 3E

The comment concerns related to impacts resulting from traffic on Interstate 80. Please refer to response 3B.

Response 3F

The comment concerns the General Plan address the preservation of sufficient right-of-way along Interstate 80 for possible expansion. A statement will be included in the final version of the General Plan indicating the need to preserve sufficient right-of-way at the interchanges for 8 lanes on Interstate 80. As indicated in the Final EIR, very little of the future increase in traffic on Interstate 80 would originate from development in Loomis.

Response 3G

The comment concerns the need for a local transportation system to relieve increasing traffic volumes on I-80. The General Plan includes an extension of Boyington Road which serves as a local, parallel facility to I-80. The plan also retains the existing overcrossing of I-80 at Brace Road. It should be noted that the of the Horseshoe Bar Road overcrossing at I-80 limits the truck traffic that can use I-80, which then must use local roads to bypass this obstacle.

Response 3H

The comment suggests that the General Plan address the need for local responsibility for funding improvements to I-80. As indicated in the General Plan, the Town of Loomis does not substantially contribute to the need for such improvements. The comment does not pertain directly to the EIR analysis.

Response 3I

The commentor requests a copy of the Town's Master Drainage Plan when complete. This document will be provided when complete. The EIR was prepared with the best available information, and assesses impacts to the extent possible.

Response 3J

The comment requests additional detail regarding the City's long-term drainage plans. Please refer to Response 3I. In addition, the General Plan provides only general direction for future development in the City. The Town's Master Drainage Plan would provide the details. The Master Drainage Plan is based on the development potential described in the General Plan.

Response 3K

The commentor notes that any future work with a Caltrans right-of-way would require a Caltrans Encroachment Permit. This comment is noted, but does not pertain to the analysis in the EIR.

Response 3L

Caltrans requests a copy of the final Master Drainage Plan and any mitigation measures associated with the General Plan. All commentors to the EIR will be provided copies of the responses to their comments, and the Final EIR is available for review at the Town of Loomis. A copy of both the Final

EIR and the Master Drainage Plan will be sent to Caltrans, once both documents are completed.

STATE OF CALIFORNIA - THE RESOURCES AGENCY
GRAY DAVIS, Governor

DEPARTMENT OF FISH AND GAME
Sacramento Valley and Central Sierra Region
1701 NIMBUS ROAD, SUITE A
RANCHO CORDOVA, CALIFORNIA 95670
Telephone (916) 358-2900

Letter 4

RECEIVED
JUN 07 2000
TOWN OF LOOMIS

June 5, 2000

Ms. Kathy Kerdus, Planning Director
Town of Loomis
Post Office Box 1327
Loomis, California 95650

Dear Ms. Kerdus:

The Department of Fish and Game (DFG) has reviewed the Draft Environmental Impact Report (DEIR) for the Town of Loomis General Plan Update (SCH #2000012026). The General Plan Update provides a framework for development within the 4,339 acres comprising the Town of Loomis in western Placer County.

The Town of Loomis provides habitat for an abundance of fish and wildlife including State and Federally listed species and species of concern (Table BIO-3). Many of these species, including listed anadromous fish species, rely upon high quality stream environments and good water quality. We believe that the measures you have identified in this DEIR are inadequate to ensure protection of stream and water resources and suggest the following modifications: 4A

1. Setbacks for perennial steams as identified in Policy CR-1 should be expanded to a minimum of 100 feet, to the extent of riparian vegetation or to the 100 year flood plain, whichever is greatest. 4B

2. Policy CR1 should be modified to include protection of intermittent and ephemeral stream environments by the incorporation minimum of 50-foot non-development setback buffers, to the extent of riparian vegetation or to the 100 year floodplain, whichever is greatest. 4C

3. Policy BIO-8, item c, should be amended to include species of concern. 4D

4. Add a policy assuring that upland grading activities will not contribute to the direct or cumulative degradation of stream water quality. 4E

FAXED 6/12/00

Thank you for the opportunity to review this project. If the DFG can be of further assistance, please contact Mr. Jeff Finn, Associate Wildlife Biologist, at (530) 477-0308.

Sincerely,

for Larry L. Eng, Ph.D.
Assistant Regional Manager,
Wildlife, Fisheries & Environmental Programs

cc: Mr. Larry L. Eng
Mr. Ron Bertram
Ms. Terry Roscoe
Mr. Jeff Finn
Department of Fish and Game
Rancho Cordova, California 95670

Letter 4

COMMENTOR: Larry Eng, Assistant Regional Manager, State of California, Department of Fish and Game

DATE: June 5, 2000

RESPONSE:

Response 4A

The commentor suggests modifications to several of the mitigation measures identified in the DEIR to more adequately protect stream and water resources. The following responses address the suggested modifications more specifically.

Response 4B

The commentor suggests modifying Policy CR-1 to expand setbacks from creek areas. In responses, a mitigation measure shall be added to the Final EIR that modifies Policy CR 1 as follows:

- **Policy CR (Natural Resources) 1.** The streams of Loomis are among the most significant and valuable of the Town's natural resources. Development adjacent to streams shall be designed, constructed, and maintained to avoid adverse impacts on riparian vegetation, stream bank stability, and stream water quality to the maximum extent feasible. These policies shall apply to all watercourses shown as blue lines on the most recent United States Geological Survey (USGS) 7.5-minute topographic quadrangle maps applicable to the Town.

  a. Proposed structures and grading shall be set back the greater of: ~~50~~ 100 feet from the outermost extent of riparian vegetation as defined in the Zoning Ordinance; ~~100 feet from the centerline of the stream; or~~ outside of the 100-year flood plain. A lesser setback may be approved where site-specific studies of biology and hydrology, prepared by qualified professionals approved by the Town, demonstrate that a lesser setback will provide equal protection for stream resources and will not increase the risk of flooding. Development shall be setback from ephemeral or intermittent streams a minimum of 50 feet, to the extent of riparian vegetation, or to the 100-year flood plain, whichever is greatest.

  b. Proposed development shall include surface water drainage facilities that are designed, constructed, and maintained to ensure that the increased runoff caused by development does not contribute to the erosion of stream banks, or introduce pollutants into watercourses.

  c. Land uses and development within the setback areas required by this policy shall be limited to: the grazing of livestock at half or less of the animal densities allowed by the Zoning Ordinance; open wire fencing to confine livestock; bridges; public

utilities and infrastructure; and other uses allowed by the applicable zoning district as permitted or conditional uses, with conditional use permit approval.

d. The following activities are prohibited within stream corridor setbacks: filling or dumping; the disposal of agricultural wastes; channelization or dams; the use of pesticides that may be carried into stream waters; grading, or the removal of natural vegetation within the required setback area, except with grading permit approval.

Response 4C

The commentor suggests modifying Policy CR-1 to address intermittent streams. Please refer to Response 4B.

Response 4D

The commentor suggests modifying Additional Policy BIO-8 to address Species of Concern. The proposed policy will be modified as follows:

- **Additional Policy BIO-8.** Prior to approval of discretionary development permits involving parcels near significant ecological resource areas, the Town shall require, as part of the environmental review process, a biotic resources evaluation by a qualified biologist. The biologist shall follow accepted protocols for surveys (if needed) and subsequent procedures that may be necessary to complete the evaluation. "Significant Ecological Areas" shall include, but not be limited to:

  a. Wetland areas;
  b. Stream environment zones;
  c. Suitable habitat for rare, threatened or endangered species, and species of concern;
  d. Large areas of non-fragmented habitat, including oak woodlands and riparian habitat;
  e. Potential wildlife movement corridors; and
  f. Important spawning areas for anadramous fish.

Response 4E

The commentor suggests an additional mitigative policy to address potential biological impacts. In response, the following policy will be added to the Final EIR:

- **Additional Policy BIO-9.** Prior to approval of discretionary development permits involving parcels near significant ecological resource areas, project applicants shall demonstrate that upland grading activities will not contribute to the direct cumulative degradation of stream quality.

PLACER COUNTY
FLOOD CONTROL AND WATER CONSERVATION DISTRICT

TIM HACKWORTH, Executive Director
LESLIE GAULT, District Engineer
ANDREW DARROW, Development Coordinator

June 12, 2000

Letter 5

RECEIVED
JUN 15 2000
TOWN OF LOOMIS

Kathy Kerdus
Town of Loomis
P.O. Box 1327
Loomis, CA 95650

RE: General Plan Update / Draft EIR

Dear Kathy:

We have reviewed the Draft EIR (DEIR) for the Town of Loomis' General Plan Update and have the following comments. We previously commented upon the NOP for the Draft EIR in a letter dated February 3, 2000.

1. The following additional impacts for projects allowed under the General Plan should be considered significant along with the hydrology impacts already mentioned on Page 60 of the DEIR:

   a.) Increases in runoff volumes.

   b.) Overloading of the actual or designed capacity of existing stormwater and flood-carrying facilities. 5A

   c.) Increases in the floodplain boundaries.

   The DEIR must specifically quantify the incremental effects of each of the above impacts due to the land use and density changes to be allowed in the General Plan Update, and must propose mitigation where appropriate.

2. The DEIR does not appear to require future projects allowed under the General Plan to adhere to Placer County Flood Control District's policies or the Dry Creek Watershed Flood Control Plan (James M. Montgomery, 1992). Will the Updated General Plan require future projects to adhere to District policies and the Dry Creek Watershed Flood Control Plan? Both the DEIR and the General Plan should be updated to reflect the need to adhere to both District policies and the Dry Creek Watershed Flood Control Plan. 5B

3. Policy PH&SE 4 (page 62) states that, "new development shall be prohibited in the 100-year flood zone as determined by FEMA and FIRM maps." Per the District's Stormwater Management Manual, development should be prohibited in the <u>future</u> 100-year floodplain 5C

FAXED 6-22-00 B

based on buildout conditions. In general, floodplain delineations for proposed developments shall be based on future buildout conditions not the most recent FIRM maps which are generally based on existing conditions. 5C (cont'd)

4. Implementation Measure PH&SE 8 (page 62) states that, "The town shall work with property owners to maintain floodways critical to the safety of neighboring properties." The term "floodways" should be replaced with "floodplains". The District is concerned with maintaining the entire floodplain, not just the floodway. 5D

5. The last paragraph on page 59 states that each City or Town is responsible for implementing flood control management strategies. We suggest that the following wording from the attached coordination agreement be substituted: "All parties to this Agreement (Placer County, City of Auburn, City of Colfax, Town of Loomis, City of Lincoln, City of Roseville, City of Rocklin and Placer County Flood Control and Water Conservation District) agree to work together in a cooperative effort to solve water conservation, drainage, and flood control problems." 5E

The District requests that both the draft General Plan and DEIR be modified to reflect these comments, and that we be given the opportunity to review all future environmental documentation prior to finalizing the General Plan Update. Please call me at (530) 889-7303 if you have any questions regarding these comments.

Andrew Darrow, P.E.
Development Coordinator

Attachment

cc: File
Chron
Project

d:\data\letters\cn00-118.doc

TOWN OF LOOMIS

RESOLUTION NO. 97-70

A RESOLUTION OF THE COUNCIL OF THE TOWN OF LOOMIS AUTHORIZING MAYOR TO SIGN A COORDINATION AGREEMENT FOR THE PLACER COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

WHEREAS, the flood Control District was created by the state legislature in 1984 as a means for Placer County jurisdictions to cooperatively mitigate flooding problems; and

WHEREAS, the working relationship among the District, the County and the cities has been largely defined since 1986 in the existing Coordination Agreement; and

WHEREAS, a revised Coordination Agreement has been developed which largely updates the old one by reflecting new developments and arrangements which have evolved in the interim.

NOW, THEREFORE, BE IT HEREBY RESOLVED that the Council of the Town of Loomis hereby approves the participation in the Coordination Agreement for regional unity and consistency.

IT IS FURTHER RESOLVED that the Mayor behalf of the Town of Loomis, this Agreement.

PASSED AND ADOPTED this 23rd day of Sept vote:

AYES: Boberg, DeWing, Florance, Mar

NOES: None

ABSENT: None

ATTEST:

Charleen Strock

Town Clerk

THE FOREGOING INSTRUMENT IS A CORRECT COPY OF THE ORIGINAL ON FILE IN THIS OFFICE ATTEST:

CRICKETT STROCK
CLERK OF THE COUNCIL OF THE TOWN OF LOOMIS, STATE OF CALIFORNIA

Crickett Strock TOWN CLERK

COORDINATION AGREEMENT FOR THE PLACER COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

This Agreement, dated _____, by and between Placer County ("County"), a political subdivision of the State of California; the cities of Auburn, Colfax, Loomis, Lincoln, Rocklin, and Roseville ("Cities"), each of which is a municipal corporation; and the Placer County Flood Control and Water Conservation District ("District"), which is a special district; governs the responsibilities of each party in the development, support, and operation of the Placer County Flood Control and Water Conservation District.

Section 1. Purpose

The County, the Cities, and the District enter into this Agreement in order to jointly coordinate in the development, support, and operation of the Placer County Flood Control and Water Conservation District, a special district authorized under the California Water Code, Uncodified Acts, Act 5936 (Stats. 1984, Ch. 689).

The District has been created to provide countywide water conservation; development of water resources; and control and management of drainage, storm, flood, and other waters; and exercise other powers as provided by law. The problems cannot be economically or efficiently solved through individual actions of existing public entities within Placer County.

The County and the Cities have an interest in improving the effectiveness of these individual activities concerning drainage, water conservation, and flood control through cooperative activities, joint actions, and support of the District.

Section 2. Responsibilities

a. All parties to this Agreement agree to work together in a cooperative effort to solve water conservation, drainage, and flood control problems. The parties further agree to study, evaluate, and implement reasonable and appropriate measures, standards, and activities designed to mitigate the effects of development activities on drainage, flooding, erosion and sedimentation, water quality and water conservation.

b. The District agrees to prepare and distribute to the parties to this Agreement by March 1 of each year an annual work program and budget, which contains a description of goals and tasks and a timetable of activities.

c. The County and the Cities agree to provide financial support to the District. The amount of each participant's annual financial support will be described by a formula based on their per capita share of total county population or other criteria which are acceptable to all parties. The District Engineer will prepare a recommended contribution schedule each year, no later than March 1.

In cooperation with the District Technical Advisory and Policy Committees, the District Engineer will prepare a report on the analysis of alternative criteria for determining the amount of each participant's annual financial support and present the report to the Board of Directors for their consideration no later than December 31, 1997.

d. The District agrees to seek, through the District Policy Advisory Committee and Technical Advisory Committee, the advice of the County and the Cities in the overall operation of the District, including but not limited to: Proposed engineering services; fixing of rates and charges; issuance of improvement, special assessment or revenue bonds; formation of improvement districts or zones of benefit; formation of zone council; levying of benefit assessments; and selection of projects to be carried out.

e. The County and the Cities agree to share with the District all information and data concerning development approvals that may have an effect on storm water flow, drainage, or water conservation.

f. The County and the Cities agree to submit to the District for review the development plans and environmental documentation for each new discretionary development project which would potentially alter the rate or volume of runoff or alter floodplain elevations in major streams. The District shall review each such project and comment on its impacts on regional drainage and flooding and regional floodplains using policies, standards and guidelines established by the District in Board Resolutions, watershed plans, the Stormwater Management Manual and other such documents as adopted from time to time.

The following projects or project documents need not be reviewed, however:

1. Building permits for single family residences,
2. Rehabilitation or reconstruction of existing improvements where the alterations do not affect the rate or volume of runoff or alter floodplain elevations,
3. Developments in areas, such as Colfax, outside of established watershed planning areas, such as the Dry Creek and Cross Canal watersheds.
4. Projects for which previous District review has determined that additional information is not required.

The District shall make every reasonable effort to provide its comments within times established by the County and Cities for their project review and approval processes. Should the District fail to do so, the County and Cities may proceed without the District's comments.

Reasonable costs incurred by the District under this requirement shall be collected directly from the applicants at rates established by the Board of Directors. Alternatively, costs my be collected by the approving agency by arrangement with the District.

g. In addition to f. above, the County and Cities may obtain the assistance or advice of District staff regarding any other drainage, flood control or stormwater management issues. Reasonable costs incurred by the District shall be reimbursed by the requesting jurisdiction.

h. The County and Cities agree to support changes to the District's enabling legislation to enable the District to become self-funding, and the District agrees to work with local legislators to effect these changes.

i. The County and Cities agree to transfer to the District fees and assessments imposed and collected specifically to support the District's watershed programs, including

capital improvements and services. The funds will be transferred to the District at least quarterly. The District agrees to:

1. Maintain these funds in separate, interest bearing accounts pending appropriations for stated purposes in accordance with established priorities.
2. Establish priorities for appropriations within a year after execution of this agreement.
3. Provide to the County and Cities annual reports and other such information as the jurisdiction may request to comply with the reporting requirements of Chapter 5 (commencing with section 66000) of Division 1 of Title 7 of the Government Code (also referred to as AB1600), as amended from time to time.
4. Return to the County and Cities such funds as may have been received from the County or City which are required to be returned by the County or City to the payer due to the successful appeal of the imposition of the fee.

j. All parties to this Agreement agree that the District Policy Advisory Committee will serve as a forum where matters of significance concerning drainage, flooding, and water conservation will be discussed.

k. District shall defend, indemnify, save and hold harmless the County or a City, and its officers, employees and agents (an "Indemnified Party") from claims of liability, lawsuits, liability, damages and costs of any kind on account of injuries to or death of any person, including (but not limited to) workers and the public, damage to property, or breach of contract arising out of any flood control improvement or water conservation project undertaken by the District; provided, however, this obligation shall be applicable only if the claim of liability arises solely because of the execution of this Coordination Agreement by the Indemnified Party and not due to any other separate or independent act or omission of the Indemnified Party.

Section 3. Committees

The following committees are formed:

a. District Policy Advisory Committee (DPAC)

The DPAC shall provide policy guidance and advice to the District Board of Directors and guide implementation of this Agreement.

The DPAC shall consist of seven (7) voting members and be comprised of the City/Town Manager of each City/Town within the District's jurisdiction and the County Executive Officer of Placer County.

In the event of an absence by a member, an alternate from that jurisdiction may attend. An alternate has the same authority as the appointed member.

b. District Technical Advisory Committee (DTAC)

The DTAC shall provide technical advice and guidance to the Board of Directors and the District Policy Advisory Committee.

The DTAC shall consist of fifteen (15) members; one each from Placer County, City of Auburn, City of Colfax, City of Lincoln, Town of Loomis, City of Rocklin, City of Roseville, the Placer County Resource Conservation District, the South Sutter Water

District, the Placer County Water Agency, Sacramento County Water Agency, the Nevada County Irrigation District, Sutter County Flood Control and Water Conservation District, Reclamation District 1001 and the Placer County Flood Control and Conservation District (Chair).

The DTAC shall invite representatives from any other interested agency to attend its meetings.

Section 4. Meetings

a. District Policy Advisory Committee (DPAC)

The DPAC shall hold meetings as necessary, the time and place to be set by the Districts Executive Director. Special meetings of the DPAC may be called by the Chairman of the District Board of Directors, Chairman of the DPAC, or by any two members of the committee. All meetings of the DPAC shall be in accordance with the Ralph M. Brown Act.

b. District Technical Advisory Committee

The DTAC shall hold regular meetings, the time and place to be set by the members. Special meetings may be called by the District Engineer.

c. Quorum

Four (4) members of the District Policy Advisory Committee shall constitute a quorum. No action may be taken by the DPAC except upon the affirmative vote of the majority of the members in attendance.

d. Conduct of Meetings

All meetings of the District Policy Advisory Committee and District Technical Advisory Committee shall be open to the public.

Section 5. Amendments to Agreement

This Agreement may be amended at any time by affirmative vote of all parties to the Agreement. Any member agency may terminate its participation under this Agreement after having given ninety (90) days notice to District and the remaining cooperating agencies.

Section 6. Coordination Agreement Signatures

PLACER COUNTY

Attest: _____ By: _____
Clerk of the Board Chairman, Bd. of Supervisors

CITY OF AUBURN

Attest :_____ By :_____
City Clerk Mayor

CITY OF COLFAX

Attest :_____ By :_____
City Clerk Mayor

TOWN OF LOOMIS

Attest :Charlene Strock By :
Town Clerk Mayor

CITY OF LINCOLN

Attest :_____ By :_____
City Clerk Mayor

CITY OF ROSEVILLE

Attest :_____ By :_____
City Clerk Mayor

CITY OF ROCKLIN

Attest : _____ By : _____
City Clerk Mayor

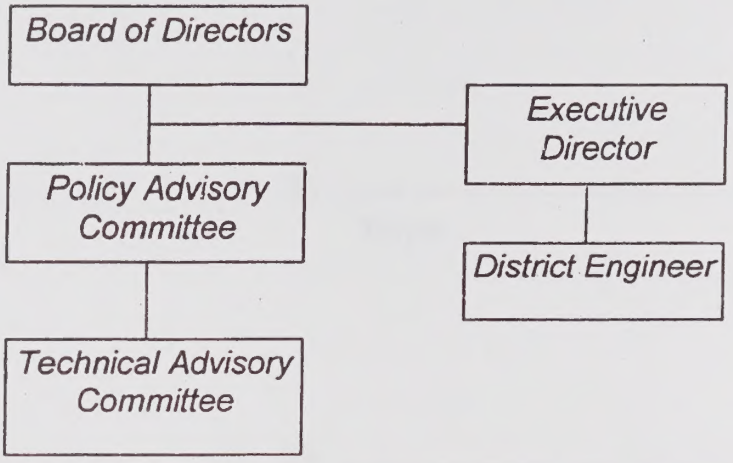
PLACER COUNTY FLOODCONTROL
AND WATER CONSERVATION DISTRICT

Attest : _____ By : _____

Board Clerk Chairman, Board of Directors

PLACER COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

ORGANIZATION CHART



Board of Directors: Two members from the Placer County Board of Supervisors, one councilman from each of the following jurisdictions: Roseville, Rocklin, Loomis, Lincoln, Colfax, Auburn; and one at-large member appointed by the Board of Supervisors.

District Policy Advisory Committee (DPAC): The Chief Executive Officer from Placer County, Cities of Auburn, Colfax, Loomis, Lincoln, Rocklin, and Roseville.

District Technical Advisory Committee (DTAC): A Staff Member from Placer County, the Cities of Auburn, Colfax, Loomis, Lincoln, Rocklin, Roseville, Placer County Resource Conservation District, South Sutter Water District, Placer County Water Agency, Sacramento County Water Agency, Nevada Irrigation District, Sutter County Flood Control and Water Conservation District, Reclamation District 1001 and Placer County Flood Control and Water Conservation District (Chair).

Letter 5

COMMENTOR: Andrew Darrow, P.E., Development Coordinator, Placer County Flood Control and Water Conservation District

DATE: June 12, 2000

RESPONSE:

Response 5A

The comment concerns additional impacts for projects allowed under the General Plan Update that should be deemed significant. These are: increases in runoff volumes, overloading of the actual or designed capacity of existing stormwater and flood-carrying capacities, and increases in the floodplain boundaries. The commentor specifies that incremental effects of the above impacts must be quantified and that mitigation measures must be provided where appropriate.

In response, it may be appropriate to identify these as potential impacts that could result from Townwide development. However, it is inappropriate and speculative to attempt to quantify such impacts in a program EIR for a Townwide General Plan update. Such an analysis would be most appropriately performed as part of a Townwide update of a master drainage plan. The DEIR proposes policy-level mitigation measure. The impacts of individual projects would be evaluated as they are proposed, with more detailed information as included in the applicant. This provision is reflected in Additional Policy H-2, as described on Page 62 of the DEIR.

Response 5B

The commentor is concerned that the DEIR does not appear to require future projects under the General Plan to adhere to Placer County Flood Control District's policies or the Dry Creek Watershed Flood Control Plan. The commentor requests that the DEIR and the General Plan be updated to include this requirement to adhere to both District policies and the Dry Creek Watershed Flood Control Plan. Please refer to Response 5C below.

Response 5C

The comment concerns Policy PH&SE 4 on Page 62 of the DEIR, which states that "new development shall be prohibited in the 100-year flood zone as determined by FEMA and FIRM maps." The commentor states that new development should be prohibited in the *future* 100-year floodplain as required by the District's Stormwater Management Manual, rather than in the present 100-year floodplain. The intent of the proposed policy is to comply with this direction. To clarify, the policy will be mended as follows:

- **Policy PH&SE 4.** Per Placer County Flood Control District directive, n~~N~~ew development shall be prohibited in the future 100-year flood zone, based on buildout conditions as determined by FEMA and FIRM maps. Development will be required to adhere to Placer County Flood Control District policies and the Dry Creek Watershed Control Plan.

Response 5D

The commentor requests a small change in wording in Implementation Measure PH&SE 8, specifically the change from "floodways" to "floodplains" to more adequately reflect the District's desire to maintain the entire floodplain. This change will be made accordingly in the Final EIR, as shown below:

- **Implementation Measure PH&SE 8.** The Town shall work with property owners to maintain floodplains ~~floodways~~ critical to the safety of neighboring properties.

Response 5E

The commentor suggests a change in wording in the last paragraph on Page 59 concerning the development and implementation of flood control management strategies. This change will be incorporated into the Final EIR but will not have any affect on the analysis included in the report. The discussion of page 59 will be amended as follows:

> *Regulatory Framework.* The Placer County Flood Control and Water Conservation District (PCFCWCD) is responsible for developing flood control management strategies within the County, with each City or Town responsible for their implementation. All parties to this agreement (Placer County, City of Auburn, City of Colfax, City of Lincoln, Town of Loomis, City of Roseville, City of Rocklin and Placer County Flood Control and Water Conservation District) have agrees to cooperatively solve water conservation, drainage and flood control problems. The Dry Creek Watershed Flood Control Plan (James M. Montgomery, 1992) prepared for the PCFDWCD and the Sacramento County Water Agency addresses flood control within the watershed, and suggests the following development principles...

Letter 6

May 22, 2000

GENERAL PLAN DRAFT EIR FIRE DISTRICT CHANGES

Following are changes to the Draft EIR under Fire Protection beginning on Page 82. Eliminate what is there concerning Loomis Fire Protection District and insert the following:

The Loomis Fire Protection District (LFPD) serves nearly all of the Town of Loomis as established by the 1999 boundaries. Small portions of the Town limits are served by the Penryn Fire Protection District and South Placer Fire District. Mutual aid and automatic aid agreements are in place with the City of Rocklin, The South Placer Fire District, the Penryn Fire Protection District and the State of California Division of Forestry. 6A

LFPD provides fire protection, fire suppression, emergency medical service, open area (wildlands) fire protection, assists in search and rescue operations and assists appropriate agencies with site control during removal of hazardous materials. The LFPD operates out of two stations with a paid staff of 12 and a volunteer base of 35 positions. The headquarters station is at Horseshoe Bar Road and Magnolia, houses the permanent staff, and contains one emergency medical rescue unit and three engines. The second station is not staffed except on call and is located at Horseshoe Bar and Tudsbury Roads, about two miles from the headquarters station, and contains one rescue unit/grass fire truck and two engines. LFPD provides response times of 5 minutes or less on 80% of all calls for service. 6B

The Insurance Service Office (ISO), a national rating service sponsored by fire insurance carriers to measure fire fighting capability to reduce structural fire losses, provides rankings of fire fighting capability on a scale of 1 - 10 with 1 being best. The LFPD fire services are rated 7 in areas that do not have fire hydrants and 6 in areas served by fire hydrants. 6C

Service calls in the LFPD area of responsibility occur mainly within the limits of the Town of Loomis. In 1999 LFPD responded to 735 calls of which 487, or 66%, were within the Town limits. Of the 487 calls 395 were for emergency medical service and 40 were for fire and other calls for service. In addition, LFPD participates in various community events, 52 in 1999, such as parades, school programs etc. 6D

LFPD operating costs are financed from three property related tax sources: a general property tax of approximately 3 cents per $100 assessed valuation; a 1997 voter approved a benefit assessment tax of $63.46 per year per parcel that can be adjusted annually based on the cost price index; and a special benefit assessment limited to non-residential developments that occur within the District. The separate benefit assessment applies to zones created for each such new development. An impact fee is also charged on new construction to finance capital costs, buildings and equipment, required to serve newly developed property. The Town of Loomis collects the fees within Town limits, and Placer County collects the fees outside of Town limits. The current LFPD development impact fee is $615.00 for non-residential construction less than 2,000 sq ft and 31.8 cents per sq ft over 2,000. The residential development impact fee is $552.00 for single family dwellings under 2,100 sq ft and 27.1 cents per sq ft over 2,100. 6E

Development fees are placed into a trust account used by the District exclusively for capital improvements.

In addition to the taxes and fees noted, the Town of Loomis contracts with LFPD to provide open area fire protection during the fire season. This had been a responsibility of the State of California Department of Forestry prior to incorporation of the Town. The Town currently pays LFPD $7,000 per year for this protection effort. 6F

All money collected helps pay the annual LFPD budget which was budgeted for 1999/00 for expenditures of $404,592 ($342,822 emergency medical and fire services; $29,770 other activities; and $32,000 capital). 6G

Letter 6

COMMENTOR: Chief Struble, Loomis Fire Protection District

DATE: May 22, 2000

RESPONSE:

Response 6A-G

The commentor provides updated facts and general information regarding the Loomis Fire Protection District. The commentor requests that the new information replace what is currently provided on the Loomis Fire Protection District in Section 3.10 of the DEIR under *Fire Protection.* The Final EIR will be changed to reflect this new information accordingly. However, the inclusion of this information will not substantively affect the analysis of potential impacts to Public Services as described in the EIR. The changes are shown below:

Fire Protection. The Loomis Fire Protection District (LFPD) serves nearly all of the Town of Loomis as established by the 1999 boundaries~~planning area~~. Small portions of the Town limits are served by the ~~Only a small portion of the planning area is outside the LFPD's service area. The~~ Penryn Fire District and South Placer Fire District ~~serve very small portions of the planning area~~. Mutual aid and automatic aid agreements are in place with the City of Rocklin, the South Placer Fire District, the Penryn Fire Protection District, and the State of California Department of Forestry.~~The California Department of Forestry also provides fire protection services, particularly with regard to rural wildland fires~~. These agencies and their service abilities are described below.

Loomis Fire Protection District. The Loomis Fire Protection District (LFPD) provides fire protection, fire suppression, emergency medical services, open area (wildlands) fire protection, assists appropriate agencies with site control during removal of hazardous materials. The LFPD operates out of two fire stations with a paid staff of 12 and a volunteer base of 35 positions. The headquarters station ~~. Station No. 1~~ is located in downtown Loomis, at the corner of Horseshoe Bar Road and Magnolia Avenue. It houses the permanent staff, and contains one emergency medical rescue unit and three engines. The second station~~Station No. 2~~ is not staffed except on call and is ~~about 2 miles east of the planning area,~~ located ~~in a rural area~~ at the corner of Horseshoe Bar and Tudsbury roads, about 2 miles from the headquarters station, and contains one rescue unit/grass fire truck and two engines. The LFPD provides response times of 5 minutes or less on 80% of all calls for service. ~~The LFPD's service boundaries are much larger than the planning area. In all, the district serves about 10,000 residents, 60% of whom reside in Loomis.~~

~~In addition to fire protection services, LFPD personnel provide first response to emergency calls, emergency medical care, hazardous spill removal, and rescue assistance. Typically, the district receives about 600 emergency calls per year, about 45% of which are for medical assistance. Only about 10% of these calls are for fires or mutual aid assistance (Placer County, *Horseshoe Bar/Penryn Community Plan EIR*, 1993).~~

~~Of the remainder, about 20% are related to vehicle accidents or other citizen assistance. Other calls relate to a variety of purposes, including hazardous materials, public relations, and other citizen oriented inquiries. False alarms comprise only about 1% of all calls.~~

~~The district maintains 12 permanent staff and about 30 volunteers. Emergency response equipment at Station No. 1 includes one rescue squad and three engines, while Station No. 2 houses a rescue unit/grass fire truck and two engines. Emergency response times typically range from 3 to 4 minutes.~~

The Insurance Service Office (ISO), a national rating service sponsored by fire insurance carriers to measure fire fighting capability to reduce structural fire losses, provides rankings of firefighting capability ~~rates fire districts for their firefighting ability~~ on a scale of 1-10, with 1 being best. The LFPD fire services are rated 7 in areas that do not have fire hydrants and 6 in areas served by fire hydrants~~The ISO rating for the LFPD is 7~~.

FFPD operating costs are financed from three property related tax sources: a general property tax of about 3 cents per $100 assessed valuation; a 1997 voter approved benefit assessment tax of $63.46 per year per parcel that can be adjusted annually based on the cost price index; and a special benefit assessment limited to non-residential developments that can occur within the District. He separate benefit assessment applies to zones created for each such new development. An impact fee is also charged on new construction to finance capital costs, buildings and equipment, required to serve newly developed property. The Town of Loomis collects the fees within the Town limits, and Placer County collects the fees outside the Town limits. The current LFPD development impact fee is $615.00 for non-residential construction less than 2,000 square feet and 31.8 cents per square foot over 2,000 square feet. The residential development impact fee is $552.00 for single-family dwellings under 2,100 square feet and 27.1 cents per square foot over 2,100 square feet. Development fees are placed into a trust account used by the District exclusively for capital improvements.

In addition to the taxes and fees noted, the Town of Loomis contracts with LFPD to provide open area fire protection during the fire season. This had been a responsibility of the State of California Department of Forestry prior to incorporation of the Town. The Town currently pays LFPD $7,000 per year for this protection effort.

All money collected helps pay the annual LFPD budget which was budgeted for 1999/2000 for expenditures of $404,592 ($342,822 emergency medical and fire services; $29,770 other activities; and $32,000 capital.)

~~In 1997, community voters approved a special tax per parcel to finance fire district operations. Currently, this special tax is $63.46 per year for single family residences. This tax is adjusted annually based on the cost price index. Capital costs are funded through impact fees collected when a building permit is issued. For single family dwellings smaller than 2,100 square feet, the impact fee is currently $560. Over that size, an additional fee of $0.28 per square foot is charged.~~

PENRYN FIRE PROTECTION DISTRICT

Letter 7

CHIEF
MICHAEL DAVIS

DIRECTORS
TOM BOWLING
MICHAEL DELONG
SHIRLEY GORDON
LELAND OELKE
MICHAEL POSEHN

May 23, 2000

Mrs. Kathy Kerdus, Planning Director
Town of Loomis
P.O. Box 1327
6140 Horseshoe Bar Rd. #K
Loomis, CA 95650-1327

RE: Comments to the Draft EIR for the Town of Loomis General Plan Update

Kathy;

7A In reviewing the document I would like to inform you of some information you may wish to include in your report. The Penryn Fire District is currently preparing to construct a second fire station near the Town of Loomis. The site is on Humphrey, West of Colwell Rd. at the Traylor Ranch Preserve.

7B The Penryn Fire District serves approximately 3,200 people and as of 1999 runs 326 calls annually. Approximately 40% of this call volume represents fire type incidents.

You may wish to use this updated information in your report. If you have any questions, or require any additional information, please do not hesitate to call me.

Sincerely,

Michael Davis, Fire Chief

FAXED 6-22-00

7206 CHURCH STREET • P.O. BOX 219 • PENRYN, CALIFORNIA 95663 • (916) 663-3389 • FAX (916) 663-4582

Letter 7

COMMENTOR: Michael Davis, Fire Chief, Penryn Fire Protection District

DATE: May 23, 2000

RESPONSE:

Response 7A-B

The commentor provides additional updated information concerning the Penryn Fire Protection District for inclusion in the EIR. This information will be incorporated into the Final EIR to reflect the most recent information, but will not have any substantive affects on the impact analysis. Specifically, the FEIR will be amended as follows:

> *Penryn Fire District.* The Penryn Fire District operates one fire station located on Church Street, off English Colony Way, in Penryn. The station serves about 3,200 people~~3,000 residents~~, including many businesses in Loomis. The district receives about 326~~250~~ calls per year, about 40~~42~~% of which are related to fire incidents (Placer County, *Horseshoe Bar/Penryn Community Plan EIR*, 1993). Response times range from 3 to 5 minutes. The ISO rating for the district is 6. The PFD is currently preparing to construct a second fire station near the Town of Loomis on Humphrey Road, west of Colwell Road.

Bollard & Brennan, Inc.
Consultants in Acoustics and Noise Control Engineering

June 22, 2000

Letter 8

Kathy Kerdus
Loomis Planning Department
P.O. Box 1327
Loomis, CA 95650

Subject: Proposed application of Loomis General Plan Public Health and Safety Element noise standards to noise from railroad warning horns.

Dear Kathy:

Pursuant to a request from Mr. Ric Ortiz, an owner of property along Taylor Road in Loomis, California, I have reviewed the specific portion of the Public Review Draft of the Loomis General Plan which pertains to railroad warning horn noise. I have the following thoughts on this topic.

8A Under the heading "Local Standards" on page 119 of the Public Review Draft of the General Plan Update, it is recognized that , "standards based on 24-hour weighting are not adequate to address certain noise sources, particularly industrial noise sources, which can occur infrequently but at a potentially higher intensity."

We completely agree with this assessment, and concur with the use of hourly performance standards such as those shown in Table S-4 for short-duration events near residential areas. As stated, the Table S-4 standards are the same as those recommended by the State of California Model Community Noise Control Ordinance for Rural-Suburban uses. There is one important distinction, however, with respect to the application of those standards to railroad warning horns.

The same document which recommends the standards of Table S-4 specifically exempts warning devices, including police, fire, and ambulance sirens, and train horns, from those noise standards (Section 11.2 of the State of California Model Community Noise Control Ordinance).

I raise this point because it appears from the last paragraph on page 119 that the Noise Element intends to have the hourly performance standards of Table S-4 applied to railroad warning horns. This would essentially result in a nighttime exterior maximum noise level standard of 55 dB (after inclusion of the 5 dB penalty for pure tones) being applied to new residential uses. When considered relative to the 76 dB maximum noise standard applied to cars on neighborhood streets [State of California Vehicle Code, Section 23130 (a)(3)] , a nighttime 55 dB Lmax standard may not be considered appropriate.

FAXED 6/28/00 B

3805 Taylor Road, Suite 2 • Loomis, California 95650 • Phone: (916) 660 - 0191 • Fax: (916) 660 - 0192

8A (cont'd)

In addition, because maximum noise levels from railroad warning horns can reach 90 dB at a distance fo 300 feet from the horn, the distance to the 55 dB Lmax contour for railroad warning horns could extend over a mile from the railroad tracks under common nighttime atmospheric conditions. Huge residential setbacks would be required from the railroad tracks if this standard is applied.

We strongly agree that the effects of railroad warning horns on new residential developments should be considered in every noise analysis prepared for such uses. However, we feel that railroad warning horn noise should be evaluated relative to how people will likely be affected. In our professional opinion, the greatest potential impact from railroad warning horns is sleep disturbance during nighttime train passages, not interference with outdoor activities during those same hours. Sleep-disturbance impacts can be mitigated through improvements to building facade construction (i.e. heavier siding and noise-rated windows). It does not seem logical to construct tall sound-walls to reduce nighttime warning horn noise to 55 dB Lmax in backyards when people are not commonly using their back yards during nighttime hours anyway.

In closing, we reiterate that railroad warning horn noise is an important issue and should be addressed in the City's General Plan. It is already included in the computations of Ldn and should also be discussed relative to the issue of sleep disturbance within residential uses. However, we believe that the application of the Table S-4 exterior noise level standards to railroad warning horns would be contrary to the recommendations of the same document from which the standards were extracted (State Model Noise Ordinance). In addition, it could require the creation of a residential buffer zone of approximately one mile on each side of the railroad tracks.

I welcome the opportunity to discuss this with you at your convenience in greater detail.

Sincerely,

Bollard & Brennan, Inc.

Paul Bollard
President

Letter 8

COMMENTOR: Paul Bollard, President, Bollard & Brennan, Inc.

DATE: June 22, 2000

RESPONSE:

Response 8A

The comments concern the noise analysis within the Draft General Plan Noise Element. While in general agreement with the information in that draft document, he suggests an alternate approach to standards addressing railroad horn noise. In response, we agree that large sound walls are inappropriate to address this intermittent impact. The intent of the proposed Noise Element is to minimize the use of such features (see Policies 5 and 6). Building design would is one approach to reducing this potential impact; minimizing night trains per Policy 14, which calls for a cooperative effort with the Union Pacific) is another. Table S-4 would be amended to note that the affects of railroad warning horns are not applicable to this table, and that such effects would be evaluated in conjunction with prevailing General Plan policy to reduce night train operations.

It should also be noted that since the comment does not pertain directly to the Draft EIR analysis, no response within the Final EIR document is possible.

BLAIR LEASING COMPANY, INC.

P.O. Box 990
3984 Del Mar Avenue
Loomis, California 95650

Phone (916) 652-0591
FAX (916) 652-7228

Letter 9

May 27, 2000

RECEIVED
MAY 30 2000
TOWN OF LOOMIS

Loomis Steering Committee on General Plan
Loomis Town Council Members

Dear Sirs: RE: Land Use: Limited Industrial

It has come to our attention that there is a land use designation in the new General Plan called "Limited Industrial". This designation is very unclear and broad in its definition. This definition needs to be clarified. The way we read it, the whole 36 acres on the west side of Swetzer becomes a buffer zone for the houses that are adjacent on Kathy Way. It reads that we should build industrial buildings with warehouse space and fenced yards, but cannot use the yards as yards, only parking, and cannot have delivery trucks in or out to utilize the warehouse function. It reads that this industrial zoned property is to be occupied by office complex type businesses only. Why have warehouses and yards? 9A

I understand there needs to be a buffer zone, say twenty feet and a concrete wall for the people on Kathy Way, but to change all the businesses on the west side of Swetzer is unreasonable. The problems with the Kathy Way houses exists where there is no buffer zone and existing CC&Rs were not followed, ie. Pool Diggers and Sierra Wes. The area adjacent to the houses should be a buffer zone and all the businesses beyond a set distance should be able to continue being industrial and obey the existing CC&Rs.

This designation is so all encompassing and vague as to make any businessman concerned as to who he would be able to lease to and who would make the leasing decisions. The existing buildings are not designed as office-like businesses and this new land use is not compatable with the industrial zoning as it reads.

Please take the time to review this designation as it could cause many problems in the future as it now is "defined". Thank you.

Very truly yours,

Elizabeth Hutchinson

FAXED 6/2/00

Letter 9

COMMENTOR: Elizabeth Hutchinson, Blair Leasing Company, Inc.

DATE: May 27, 2000

RESPONSE:

Response 9A

The commentor expresses concern over the "Limited Industrial" land use designation in the General Plan Update. However, because the comment does not indicate concerns with the adequacy of the DEIR, no response is required. The issue is being evaluated in the context of ongoing public workshops on the General Plan update.

BLAIR LEASING COMPANY, INC.

P.O. Box 990
3984 Del Mar Avenue
Loomis, California 95650

Phone (916) 652-0591
FAX (916) 652-7228

Letter 10

RECEIVED
MAY 30 2000
TOWN OF LOOMIS

May 27, 2000

Town of Loomis
Town Council Members

Councilpersons, RE: Swetzer Road Extension

I wish to express my concern as to the changes that are occurring at Swetzer Road and King Road. I understand the General Plan will show that Swetzer Road will extend to Sierra College Blvd and by pass our downtown, Taylor Road area. I feel this plan needs to become a priority for the Town Council to move forward with the actual road development.

As you know the industrial development on Swetzer Road is really accelerating. There are already three new complexes going up on the east side of Swetzer with the grading beginning on another that I know of. The traffic is really becoming a hazard on Swetzer to King through downtown. I have seen the backup of traffic trying to turn onto King from Swetzer toward Taylor often as many as 10 - 15 vehicles. 10A

If we as a Town wish to continue our growth in the area of commercial and industrial, we must get this Swetzer extension built. Not only will it make the buildings on Swetzer Road more appealing for companies to occupy, but it will open up the commerically designated land along the Swetzer extension to Sierra College.

Please give the Swetzer extension your immediate attention so that Loomis can continue to grow in the direction we all want according to the General Plan.

Very truly yours,

Elizabeth Hutchinson

FAXED

Letter 10

COMMENTOR: Elizabeth Hutchinson, Blair Leasing Company, Inc.

DATE: May 27, 2000

RESPONSE:

Response 10A

The commentor expresses concern about the Swetzer Road extension, and requests that the extension plan be given immediate attention to move forward the plans for construction. This comment does not indicate any concerns with the adequacy of the DEIR, so no response is required. The issue is being evaluated in the context of ongoing public workshops on the General Plan update.

Letter 11

RECEIVED
JUN 08 2000
TOWN OF LOOMIS

PIERCE ESTATE
5820 Rocklin Road
Loomis, CA 95650

June 5, 2000

Loomis Town Council:

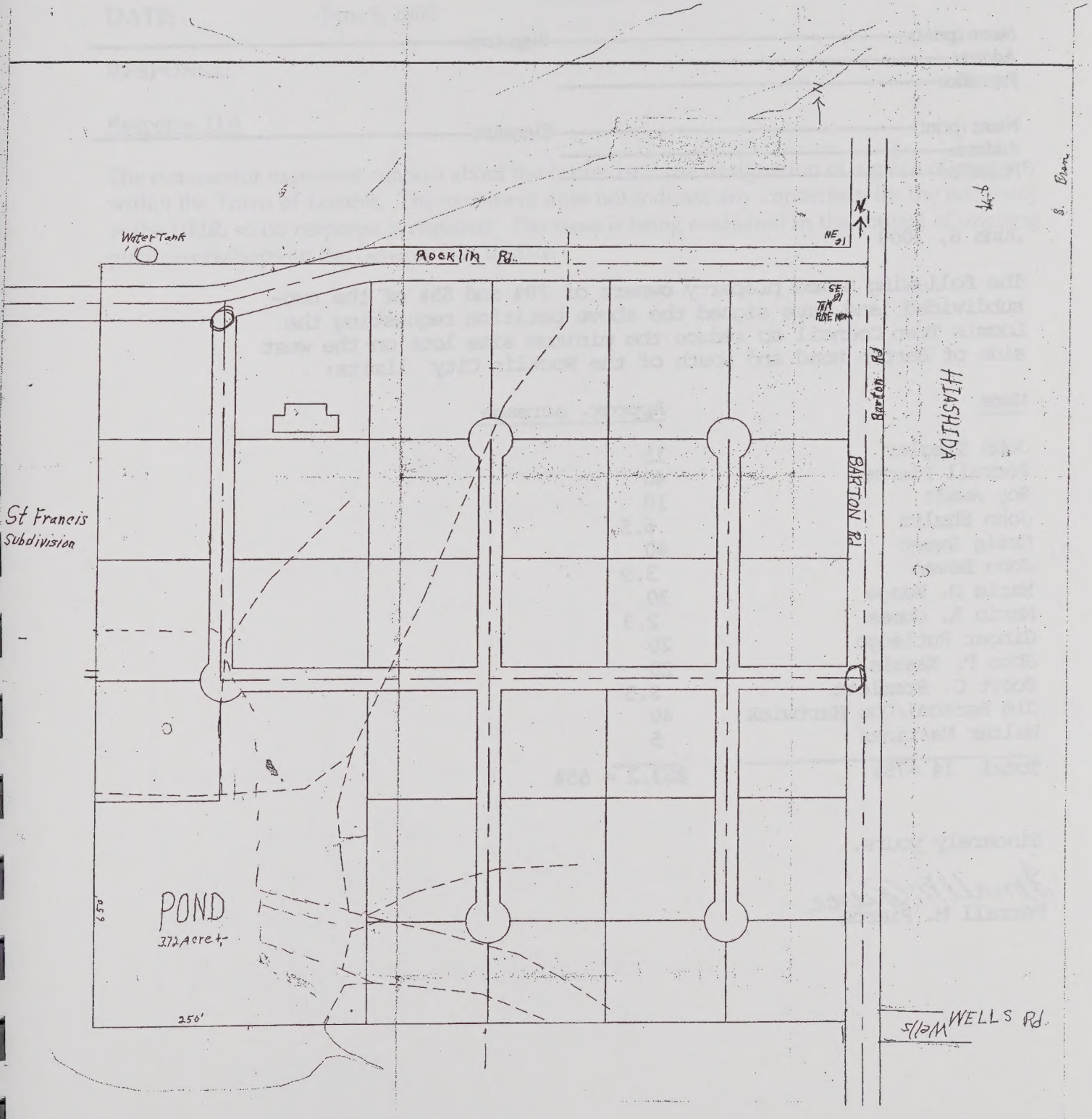
The owner of the plus or minus 40 acres in the NE ¼ of the SE ¼ (old Omahander homestead at the junction of Rocklin and Barton Roads) request that the land be changed from a minimum size lot of 4.6 acres to a one acre size lot and that the restriction on and off ingress and egress to Barton Road be lifted on the grounds that it is unfair to the property owner to be denied access to a public road (Barton), descriminary and probably unconstitutional. The subdivision shall have only two passage ways in and out to help minimize traffic. We desire and intend to make it a place of beauty that Loomis citizens will be proud of and that will help build a tax base for the town treasury. We shall try to preserve the flora and fauna habitat that is desirable and remove that which is not. We believe that your affirmative action on this matter will help to relieve the housing shortage and to some extent the homelessness.

11 A

Owner: Ferrall M. Pierce
5820 Rocklin Road
Loomis, CA 95650

Ferrall M. Pierce

To Loomis Town Council
Proposed Pierce Estate
5820 Rocklin Rd
Loomis, Ca 95650
Phone 916 652 4766



TO: Town of Loomis California

The following property owners request the Council to consider the minimum size lots of one-half to three-quarters acres to be allowed in the south-west part of the town west of Barton Road, north of the present town limits and south of the eastward extension of the City of Rocklin.

Name (print) Ferrall M. Pierce Signature Ferrall M. Pierce
Address 5720 Rocklin Rd Phone 6524766
Postoffice Loomis, Ca 95650

Name (print) Signature
Address
Postoffice

Name (print) Signature
Address
Postoffice

June 6, 2000

The following named property owners of 78% and 85% of the non-subdivided land have signed the above petition requesting the Loomis Town Council to reduce the minimum size lots on the west side of Barton Road and south of the Rocklin City limits:

Name	Approx. acreage
John Ziegler	15
Ferrall Pierce	40
Roy Awalt	10
John Shultz	6.5
Graig Sweet	40
John Bevan	3.9
Marie D. Waage	30
Mario A. Gomes	2.3
Ginger Rutledge	20
John P. Kassis	20
Scott C. Bramlett	2.5
Jim Bertoni/Don Hartwick	40
Walter Martinez	5
Total 14 =78%	253.2 = 85%

Sincerely yours,

Ferrall M Pierce.
Ferrall M. Pierce

Letter 11

COMMENTOR: Ferrall M. Pierce

DATE: June 5, 2000

RESPONSE:

Response 11A

The commentor expresses concern about the future land use designation of a piece of property within the Town of Loomis. This comment does not indicate any concerns with the adequacy of the DEIR, so no response is required. The issue is being evaluated in the context of ongoing public workshops on the General Plan update.

Letter 12

Gretchen B. Crespillo
Psychic Consultant

3521 Sierra College Blvd.
Loomis, CA 95650
916-652-6509

RECEIVED
MAY 3 1 2000
TOWN OF LOOMIS

May 31-00

Loomis Town Hall
Ref.- Specific request
with ref. to General Plan.

Town Council
Planning Commission
Staff.

After reviewing the new plan & proposed recommendations by Staff & Consultants, I request consideration of area around the intersection of Sierra College Blvd & King Rd. - be rezoned & reinstated as Commercial & Office & Professional all 4 directions because of Growth & Traffic that is to occur on the major road, Widening & signalization - will effect Area greatly.

12A

FAXED

I specifically request that my property at 3521 Sierra College Blvd - Loomis, Ca 9565 be re-evaluated & moderate-income designated in General plan See map identifier - & Description Change A & B. nodes.
also see map, enclosed & identifier.
Thank You —

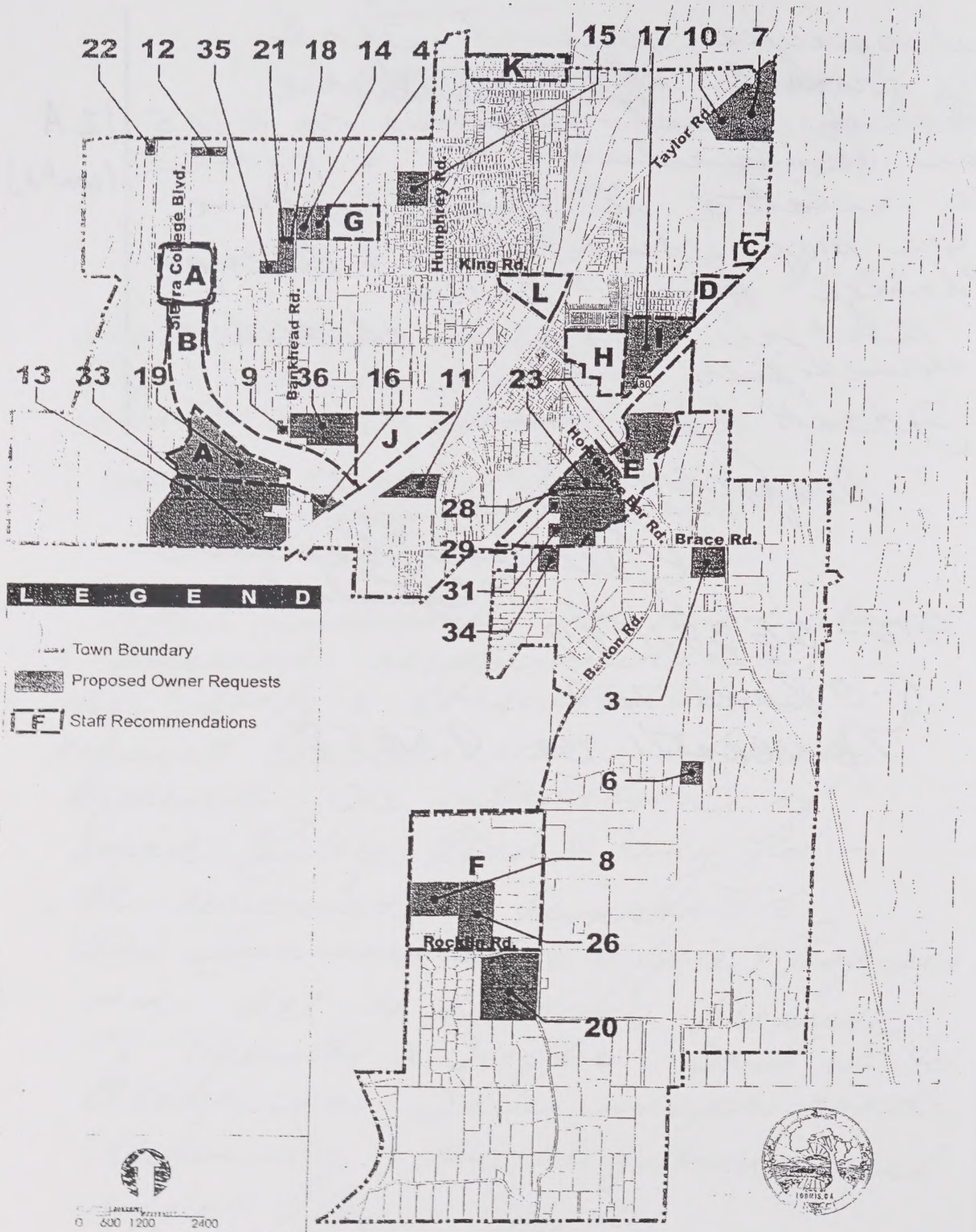
Respectfully

Shellene Cespedes-McDaniel.

916-663-4739.

P.O Box 727
Newcastle, Ca 95658

12A (cont'd)


22 12 35 21 18 14 4
15 17 10 7
K
Taylor Rd.
Humphrey Rd.
G
Sierra College Blvd.
A
B
King Rd.
L
C
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I
H
Bankhead Rd.
13 33 19 9 36 16 11 23
J
A
E
Horseshoe Bar Rd.
28
29
31
34
Brace Rd.
Barton Rd.
3
6
F
8
26
Rocklin Rd.
20
LEGEND
Town Boundary
Proposed Owner Requests
Staff Recommendations
0 600 1200 2400
Town of Loomis
General Plan Update
Land Use Alternatives

Revised

Land Use Alternatives

The following are alternatives to the land use designations of the current Loomis General Plan, proposed by the Town's staff and planning consultants, and by various property owners. Each of the areas or parcels where changes are proposed have been identified on the accompanying map.

Staff-Proposed Alternatives

Map Identifier	Description of Change	Discussion	Steering Committee Action
A	Create commercial nodes on Sierra College Boulevard at King Road and Bankhead.	These changes are suggested because predicted significant increases in traffic (and resulting noise) along Sierra College Boulevard will limit the appropriateness of the corridor for rural residential use. The King Road intersection is now partly non-residential, and additional commercial use will also assist in achieving the Town's goal of improved fiscal conditions. The boundaries of these areas as they will be shown on the draft land use diagram will be deliberately general, to allow the specific locations of the commercial areas to be worked out through the eventual rezoning process, and based on specific development proposals.	Do not approve as proposed. Draft plan should instead show General Commercial from Taylor to the four corners at Bankhead Road, and 2.3 acre density outside of this commercial area along the southwesterly side of Sierra College Blvd. from the railroad to a line extending north from the west property line of the parcel described in property owner request 13 below. Ireland/Trimm - 8:2
B	Provide for a corridor of office and professional uses between the commercial nodes along Sierra College Boulevard.	This change is recommended for the same reasons as the previous change. Office uses are proposed for this portion of the corridor to avoid a strip commercial condition between King and the freeway, and to provide for design controls that would retain landscaped open areas along the road frontage, followed by low-profile structures, to maintain as much of the open character of the area as possible. Standards should be provided in the General Plan to require the retention and integration of major trees into proposed development. Office use would provide additional employment opportunities, and office development can be more easily designed to be less visually intrusive than commercial.	Do not approve as proposed. Draft plan should instead contain policy language as noted in the separate paper entitled "General Plan Steering Committee Draft Policies." Phillipe/Vaughn - 10:0

Letter 12

COMMENTOR: Gretchen Crespillo, Psychic Consultant

DATE: May 31, 2000

RESPONSE:

Response 12A

The commentor expresses concern about the future land use designation of a piece of property within the Town of Loomis. This comment does not indicate any concerns with the adequacy of the DEIR, so no response is required. The issue is being evaluated in the context of ongoing public workshops on the General Plan update.

Letter 13

RECEIVED
JUN 12 2000
TOWN OF LOOMIS

LOOMIS DRAFT EIR

Jean Wilson
4301 Barton Rd., Loomis
June 12, 2000

Re: Masonry Building Retrofit

ES-14 PH&SE 3 states that the town should implement a program of retrofitting existing unreinforced masonry buildings.

While I agree that this is a good goal, I have also lived in an area where such retrofitting was being done, and I know that it can be a very expensive endeavor. Does this statement imply that the town is to pay for the work? Will it require the owners to pay for the work? Will the building be condemned if it is not done, even though we do not live in a highly seismic area? If the town does not implement the plan as the policy says it "should," then if someone were to be injured or suffer property loss from such a building, could the town be held liable for damages because it hadn't yet done what it stated it "should" do? 13A

May I suggest keeping the concept but modifying the language to something such as "the town shall encourage retrofitting of unreinforced masonry buildings" and perhaps even "the town will investigate funding sources for retrofitting unreinforced masonry buildings."

Thank you.

Jean Wilson

Jean Wilson

FAXED 6-16-00 8

Letter 13

COMMENTOR: Jean Wilson

DATE: June 12, 2000

RESPONSE:

Response 13A

The commentor expresses concern with proposed Implementation Measure PH&SE 3 regarding the specification that the town should implement a retrofitting program for existing unreinforced masonry buildings. The commentor suggests that the statement is ambiguous about who will be responsible for the costs of retrofitting and what will happen if retrofitting is not undertaken. The commentor suggests modifying the language of that statement to be more flexible with regard to the town's responsibility for funding and implementation of the retrofitting program. In response, the purpose of the measure is simply to state the Town's policy direction that retrofit program be implemented. Neither the General Plan update nor the Draft EIR are intended to evaluate the details of such a program. While economic concerns are crucial, these would be addressed at the time a program is being developed. If there are substantial economic effects of this program, they would be evaluated at that time. This program is recommended in the Draft EIR because it is prudent policy direction, intended to minimize safety impacts to lives and property within the Town.

Letter 14

~~AdKnowledge~~ SEAN WILSON

Kathy - some minutiae you might pass along for clearing up final draft of EIR

RECEIVED
JUN 12 2000
TOWN OF LOOMIS

ES-11 ¶2 Bio 7, line 3: "though" should be "through" — 14A

p15 last ¶ (also p. 46). Line 2 says no DGP policies directly address lighting impacts. However, it appears a couple of policies have been added. Should the statement then be deleted or modified? — 14B

p96 (also 104, 112) re traffic on Baxter Rd. I think the chart should read South of Rocklin Rd, not North. The section north of Rocklin Rd. is the same ½ miles (approx.) as the one South of Brace, just above it in the chart. The section south of Rocklin Rd has heavier traffic because it is used as a cut-through between Rocklin and Granite Bay. — 14C

When recreation at Sierra College is discussed, probably the pool should be added to facilities (p 87), and perhaps "credit and non credit athletic and art classes" or some such. (The Community Education classes (non credit) have a number of offerings that are similar to those of a recreation dept.) — 14D

Jean Wilson

I don't know that this is of interest to the council as an EIR comment. More in the nature of a memo to you. — 14E

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FAXED 6-16-00

Letter 14

COMMENTOR: Jean Wilson

DATE: June 12, 2000

RESPONSE:

Response 14A

The commentor notes a slight spelling error in ES-12, which will be changed in the Final EIR.

Response 14B

The commentor expresses confusion regarding information contained in the Draft EIR. To clarify, the Draft EIR describes proposed General Plan policies that could mitigate potential impacts. If the proposed General Plan is silent about an important issue, the Draft EIR will recommend additional mitigative policies to address the particular concern. On page 15, the DEIR notes that no lighting related policies are contained in the Draft General Plan evaluated by the EIR. This is a true statement. In response, the Draft EIR recommends Additional Policies AES-1 and AES-2 to address this issue. These new policies would be carried forward in the revised General Plan.

Response 14C

The commentor suggests that the chart on Page 96 (also Pages 104, 112) regarding Barton Road should read "South" of Rocklin Road, not North as is currently stated. The Draft EIR evaluated roadway operations as shown in the referenced charts, which is written correctly. There is slightly more existing traffic on the portion of Barton Road north of Rocklin Road than just south of Brace Road (1,700 ADT vs. 1,400 ADT).

Response 14D

The commentor provides additional detail regarding recreational facilities available in the Town of Loomis, including a swimming pool and community classes. Table PS-2 of the Draft EIR generally describes facilities in the community, as listed in the Town's Park and Recreation Mater Plan. The additional information, while useful, does not affect the analysis or conclusions of the Draft EIR.

Response 14E

The comment does not pertain to the EIR analysis. No response is required.

C. REVISIONS TO PROPOSED LAND USE PATTERN FOLLOWING PUBLIC COMMENTS

1. Description of Differences from Proposed Project Examined in Draft EIR

Since the time the Draft EIR on the proposed General Plan update circulated (April 28 to June 12, 2000), several requests for land use changes not originally contemplated under the proposed General Plan have been considered for inclusion in the final document. In general, these requests have been the result of citizen input, for the purpose of addressing individual development desires or to reflect on-the-ground constraints that limited the development possibilities of the site.

Most of these changes were the result of the ongoing General Plan process, including workshops associated with that process, and should be viewed in the spirit of what a General Plan is: an evolution of community goals and desires. As a result of these recent land use change requests, the Town Council chose to pursue several of these proposed changes, for the purpose of better reflecting the long-term goals of the community.

The material changes from those already described in the Project Description of the Draft EIR are briefly noted below in Table A.

Table A. Differences from Land Use Pattern Examined in Draft EIR

ID	Location	Designation in DEIR	Proposed Designation
A	Along Sierra College Boulevard, I-80 to north of Bankhead Road	General Commercial	Residential Estate (1 du/2.3 ac)
B	Three parcels on Barker Road, north of King Road	Residential Agricultural (1 du/4.6 ac)	Residential Estate (1 du/2.3 ac)
C	One parcel along Humphrey Road	Rural Residential (1 du/ac)	Residential Medium Density (2-6 du/ac)
D	One parcel along south side of Taylor Road, north of Del Oro HS	Residential Estate (1 du/2.3 ac)	General Commercial
E	One parcel along south side of Taylor Road, north of Del Oro HS	Residential Estate (1 du/2.3 ac)	Residential Medium Density (2-6 du/ac)
F	One parcel along Notta Drive, north of King Road	Residential Estate (1 du/2.3 ac)	Public/Quasi-Public
G	One parcel along Interstate 80, south of David Avenue	Residential Medium High Density (6-10 du/ac)	Residential Medium Density (2-6 du/ac)
H	Large area along Brace Road from Secret Ravine to eastern Town Limit	Residential Agricultural (1 du/4.6 acres)	Residential Estate (1 du/2.3 acres)

In general, the changes typically call for a slight intensification of residential densities in a few locations away from the city's core. On the other hand, a large area on the north side of Interstate 80 near downtown would experience a long-term relative reduction in buildout potential. A planned commercial corridor along Sierra College Boulevard anticipated under the General Plan as examined in the DEIR would not occur. However, additional commercial development potential would be allowed on one parcel along Taylor Road near the eastern edge of the Town. Figure 2 in the Final EIR shows the revised Land Use Map that includes these changes, while Figure 3 shows the areas of potential change from the existing plan.

Based on these changes, Table B updates the buildout potential of the proposed General Plan. In general, it is substantially similar to what was examined in the Draft EIR. The buildout potential of the updated plan as modified is less than 2% higher than described in the Draft EIR. This information will be updated in the Final EIR text, but would not alter the analysis or conclusions contained in the Draft EIR, since the magnitude of impacts would be substantially similar. In addition, since the mitigation measures are policy driven, they would not be affected by the slight modification in buildout potential.

Table B. Summary of Proposed Land Uses and Residential Potential (April 2001)

Land Use Designation	Acreage	Residential Potential * (Dwelling Units)
Residential Designations:		
Residential High Density (10-15 du/ac)	1.4	17
Residential Medium High Density (6-10 du/ac)	121.2	970
Residential Medium Density (2-6 du/ac)	397	1,588
Residential Low Density (2 du/ac)	32.2	52
Rural Residential (1 du/ac)	269.9	216
Residential Estate (1 du/ 2.3 ac)	686.1	239
Residential Agricultural (1 du/4.6 ac)	2,295.3	399
Subtotal All Residential:	*3,847.3*	*3,480*
Commercial Designations:		
General Commercial	98.9	158
General Commercial – Downtown Core	38.5	92
General Commercial – Tourist/Destination	113.9	182
General Commercial – Office	29.3	-
Subtotal All Commercial:	*280.6*	*432*
Industrial Designations:		
Industrial – Business Park	40.8	-
Industrial – Limited Industry	38.9	-
Industrial – Light Industry	107.3	-
Subtotal All Industrial:	*187.0*	-
Public/Quasi-Public	*67.4*	-
TOTAL	**4,338.1**	**3,913**

** All figures are 80% of maximum theoretical buildout. This rate is used to reflect unavoidable constraints to achieving maximum buildout, including: 1) the need to provide space for infrastructure; 2) many parcels cannot be subdivided; and 3) many property owners will not choose to split their lots to accommodate additional growth. 80% of maximum is a typically used maximum "achievable" buildout estimate.*

2. Difference in Anticipated Impacts

There are eight areas within the Town where proposed land use designations differ from those analyzed within the Draft EIR (Table A). It should be kept in mind that the proposed project is a General Plan update, which includes a very general long-term forecast of the anticipated

development potential of the Town. In the context of this Townwide General Plan, the few changes described above would not result in substantially different long-term physical impacts than what is anticipated under the development scenario analyzed in the Draft EIR. In general, impacts would be similar to those anticipated in the Draft EIR. Table C summarizes the likely differences in impacts that would occur as a result of implementing these changes.

Table C. Differences in Impacts Due to Proposed Changes

ID	Description of Change	Discussion
A	Leave large area as Residential Estate instead of General Commercial, along major roadway	Would result in less commercial traffic in the vicinity of I-80 and Sierra College Boulevard, and reflects the existing land use designation for this area.
B	Would allow three parcels in Residential Agricultural area to build at twice the currently-allowed density.	Minor increase of housing buildout potential because of the limited size of the parcels in question. The effect is not significant in the context of a greater general plan buildout.
C	Slight increase in residential intensification on one parcel along Humphrey Road near the Town's northern boundary	Density increase would increase housing buildout potential, but not substantially. Slight increase in resulting traffic on Humphrey Road. In the context of the General Plan, the difference in impact would be negligible.
D	Changes Residential Estate to General Commercial on one parcel along Taylor Road	Would slightly decrease residential traffic, but increase commercial traffic along Taylor Road. Commercial uses may be compatible with increased residential densities proposed under Item E below.
E	Slight increase in residential intensification along Taylor Road near the Town's northeastern boundary	Density increase would increase housing buildout potential, but not substantially. Slight increase in resulting traffic on Taylor Road. Increased density generally compatible with potential commercial uses contemplated under Item D above.
F	Changes one parcel designated Residential Estate to public uses	Reduction in housing potential would slightly reduce traffic on King Road. In the context of the General Plan, the difference in impact would be negligible.
G	Large parcel on the north side of Interstate 80 would reduce residential development density	Reduction in development potential by roughly half of a large residentially-designated parcel near Interstate 80 could result in somewhat less traffic in the area, and ultimately less public-service oriented impacts.
H	Large area along Brace Road would increase residential development density allow from 1 unit per 4.6 acres to 1 unit per 2.3 acres	Although residential densities would increase in a large area, the area would remain fundamentally rural in character, though of a slightly higher intensity than currently exists. This designation would provide a transition from adjacent commercial uses to the north and Residential Agricultural density (1 unit per 4.6 acres) to the south. A slightly greater long-term increase along Brace Road and Horseshoe Bar Road would not be substantial in the context of the Citywide General Plan update.

Taken as a whole in the context of all development anticipated under the General Plan, the effects described above would not be substantially different than those already described in the Draft EIR. The mitigation measures included in the Draft EIR, which are policy-oriented by their nature, would be identical to those required to accommodate the changes described above. It is important to note that the proposed General Plan goals and policies would in no way be altered as a result of the land use designations described above.

For this reason, the Final EIR can conclude that the proposed development scenario examined in the Draft EIR would have substantially similar impacts to the land use pattern considered above. No additional analysis is required.

EXECUTIVE SUMMARY

This section summarizes the characteristics of the proposed project, alternatives, environmental impacts, mitigation measures, and residual impacts associated with the proposed project.

PROJECT SYNOPSIS

Project Applicant

The project applicant is the Town of Loomis

Project Description

The proposed project is an update of the Town of Loomis' General Plan, first adopted in 1987. Loomis is located in Placer County, midway between the cities of Roseville and Auburn, northeast of Sacramento (Figure 1). This General Plan update responds to changes in the community and surrounding areas since it was incorporated in 1984, and in the years since the adoption of the first General Plan. The Community Development Element addresses the community's vision for development during the planning horizon, identified as the year 2020. This element addresses the state requirements land use issues within the General Plan. It includes a map of proposed urban boundaries and planned land uses. It also contains goals, objectives and policies that will govern the growth of the Town of Loomis and the management of its resources. The updated General Plan also includes five other elements: Public Services Facilities & Finances, Circulation, Conservation of Resources, Public Health & Safety, and Housing. As required under state law, these five proposed elements address the seven mandated General Plan issues (Land Use, Circulation, Conservation, Open Space, Noise, Safety, and Housing).

The magnitude of buildout under the updated General Plan would be the result of two factors: 1) development of vacant lands within the Town; and 2) the redesignation of some lands within the Town to accommodate development different than what is anticipated in the previous general plan. At this time, an expansion of the Town's existing Sphere of Influence is not anticipated. (The Town's existing boundaries are the same as its Sphere of Influence.)

Under the proposed General Plan, the ultimate buildout population could be as much as 10,500~~10,400~~, a 72~~70~~% increase over the existing population of 6,100. About 480,000 square feet of new commercial development and 800,000 square feet of new industrial development would likely occur under the updated General Plan by 2020. New non-residential development would likely accommodate up to about 2,400 new jobs by 2020, for a total of 4,021. However, the rate of job production would be based on economic and market conditions, which fluctuate greatly over time. Full buildout under the General Plan Update, based on the holding capacity of the vacant lands in the Town, could accommodate a total employment of about 13,137. This accounts for the full holding capacity of all vacant non-residential land.

ALTERNATIVES

Four alternatives to the proposed project were selected for consideration as follows:

Alternative 1: No Project (Existing General Plan Buildout). This alternative would consider adopting no General Plan Update, but instead allowing buildout under the current General Plan. It would not include the new policies contained in the proposed update, but instead would rely on the existing General Plan policies.

Alternative 2: Staff Recommendations and Citizen Requests. During the development of the currently proposed General Plan land use map, several land use changes were recommended by staff, but ultimately not adopted by the General Plan Steering Committee. In most cases, these changes were recommended to address one or more environmental issue, or to minimize potential land use conflicts at a given location. In addition, various citizens requested changes for their own purposes, which were not always environmental in nature. Collectively, these recommendations and requests form the basis of this project alternative. In summary, this alternative would include all the land use designations shown for the proposed project along with staff recommendations and citizen requests. However, the policies included for the proposed project would be the same under this alternative.

Alternative 3: Staff Recommendations Only. This alternative is similar to the previous alternative, which included a combination of staff recommendations and citizen requests that were ultimately rejected by the General Plan Steering Committee. However, this alternative includes only the changes recommended by staff, which generally coincide with the changes that would mitigate one or more potential impacts. These would be included in combination with the changes suggested under the Proposed Project (see Table LU-1 in section *3.8 Land Use* for a complete description of changes associated with the Proposed Project). As with the previous alternative, the policies included for the proposed project would be the same under this alternative.

Alternative 4: Maximum Development Scenario. After the initial opportunities for citizen input, a preliminary version of the updated General Plan was developed, which formed the basis of the Proposed Project. Alternatives 2 and 3 consider other changes that were ultimately not incorporated into the proposed General Plan update. Since that time, several other citizen requests have come forward that have not been previously considered. This alternative considers these requests. Specifically, this alternative considers a "maximum buildout" scenario, which is a combination of the changes suggested under the proposed project, the original citizen requests and staff recommendations, and recently-suggested citizen requests.

No alternative is clearly superior to the proposed project, although certain alternatives have some superior aspects. Development under the existing plan (No Project, Alternative 1) would result in the least amount of future development, which makes it superior for issues related to the magnitude of population increase. Such issues include public services, utilities, and air quality. Although traffic and related noise generated under this alternative would be incrementally less, this scenario would not include many of the mitigating effects of the proposed plan. It would also result in greater land use impacts than under the proposed plan, which would specifically address many known land use conflicts in the community. Impacts related to the protection of natural resources would also be worse, because the existing plan does not include as stringent policy controls to address these issues.

Alternative 3 would include staff recommendations that would reduce land use conflicts to the maximum extent of any alternative. It is notably superior in that regard. It would also include the mitigate policies and programs included under the proposed General Plan. However, the slightly increased development intensity associated with some of the proposed land use changes would incrementally increase potential population-related impacts, including traffic, noise, air quality, public services and utilities. Issues related to the protection of natural resources, and safety/hazard issues, would be similar to what is expected under the proposed project. Overall, it is similarly superior to the proposed plan, and slightly preferable to the existing plan (Alternative 1).

Alternative 2 includes many citizen requests that could introduce impacts not anticipated under the proposed General Plan. It is therefore considered generally environmentally inferior to the proposed

plan. Alternative 4 includes the maximum buildout scenario, which includes the positive aspects of the proposed project and Alternative 3, but introduces many citizen requests that have the effect of greatly increasing development potential. Impacts to traffic and aesthetics in particular would be substantially worse, as would land use conflicts in many areas.

Overall, the proposed project and Alternative 3 are considered similarly superior, with development under the existing plan (Alternative 1) slightly environmentally worse. Alternative 4 carries by far the greatest environmental impacts.

The alternatives analysis is described in further detail in Section 5.0, *Alternatives*.

SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table ES-1 identifies project environmental impacts, proposed mitigation measures, and residual impacts. The table is intended as a summary, not an exhaustive description of impacts. For the full description of impacts, please refer to Section 3.0 *Impact Analysis*. For most issues, proposed General Plan policies serve as internal mitigation measures. These are included in the summary table. In addition, other measures that are suggested by the EIR in addition to previously proposed policies in the General Plan are listed.

For clarity, and to help determine which issues would require a Statement of Overriding Considerations, potential impacts are divided into four classes. Class I impacts are defined as significant, unavoidable adverse impacts which require a statement of overriding considerations to be issued pursuant to Section 15093 of the *State CEQA Guidelines* if the project is approved. Class II impacts are significant adverse impacts that can be feasibly mitigated to less than significant levels and which require findings to be made under Section 15091 of the *State CEQA Guidelines*. Class III are considered less than significant impacts, and Class IV are beneficial impacts. The following is a listing of the project impacts sorted by class:

Class I - Unavoidable Adverse Impacts

Air Quality
Biological Resources
Hazardous Materials (regional transport of materials)
Hydrology (water supply, if proposed facility expansions do not occur)
Noise (cumulative noise levels on major roadways)
Transportation and Circulation (Cumulative roadway congestion, on selected roadways)

Class II - Significant Impacts That Can Be Mitigated To Insignificant Levels

Aesthetics (visual impacts)
Cultural Resources
Geologic Processes
Hazardous Materials (in town use and storage)
Hydrology (flooding and water quality; potentially water supply if proposed facility expansions occur)
Land Use
Public Services (police protection, fire protection, schools, libraries)
Transportation and Circulation (all issues not mentioned above)
Utilities (solid waste, wastewater, electricity, gas)

Class III - Less Than Significant Impacts

None

Class IV - Beneficial Effects

None

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
AESTHETICS		
The following are considered potentially significant visual impacts: • Potential urbanization of the community from growth pressures; • Potential for proposed commercial development to appear generic; • Degradation of public viewsheds; • Potential urban design concerns for the downtown area and new commercial development; • Concerns over gateway treatments at the edge of the community.	The following Draft Land Use and Community Design Element policies address potential impacts related to the key issues described above: • **Policy LUE (Community Design) 1.** The design of development should respect the key natural and built resources on each site, including ecological systems, vegetative communities, major trees, water courses, land forms, archaeological resources, and historically and architecturally important structures. Proposed project designs should identify and conserve special areas of high ecological sensitivity throughout the Town. Examples of resources to preserve include riparian corridors, oak woodlands, and estuaries. • **Policy LUE (Community Design) 2.** Each development project should be designed to be consistent with the unique local context of Loomis (addresses form, siting, massing, natural features and surroundings). • **Policy LUE (Community Design) 3.** Design each project at a human scale consistent with surrounding natural and built features. • **Policy LUE (Community Design) 4.** Design projects to minimize the need to use automobiles for transportation. • **Policy LUE (Community Design) 5.** Encourage an active, varied, and concentrated urban life within commercial areas (encourages pedestrian-oriented development and mixed uses). • **Policy LUE (Community Design) 6.** Respect and preserve natural resources within rural areas (through the harmonious design of buildings, and the emphasis on native vegetation and natural forms in landscaping) In addition, the General Plan includes an implementation measure that calls for "the preparation of detailed and design	**Less Than Significant:** Implementation of the proposed policies of the Land Use and Community Design Element, in combination with the additional recommended policies, would be expected to mitigate impacts to view corridors. No significant impacts are anticipated.

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	guidelines for multi-family residential, commercial, and industrial and other nonresidential development types, to expand on the general policies provided above, and provide developers with clear expressions of community preferences for project design, without mandating single architectural styles." Implementation of these policies is anticipated to mitigate impacts relating to visual character of the community. However, no Draft General Plan policies directly address issues related to minimizing light and glare impacts. Several policies within the Draft General Plan encourage site planning techniques that would indirectly minimize the potential for light and glare impacts. Such methods include setbacks, building orientation, and separation of incompatible land uses. The Draft Community Design Element also encourages the use of street trees and non-reflective building materials, both of which would reduce glare impacts. In order to ensure that such impacts would be mitigated to a less than significant level, the following policy/implementation measures shall be added to the Draft Land Use and Community Design Element: • **Additional Policy AES-1.** New lighting (including lighted signage) that is part of residential, commercial, industrial or recreational development shall be oriented away from sensitive uses, and shielded to the extent possible to minimize spillover light and glare. Lighting plans shall be required for all proposed commercial and industrial development prior to issuance of building permits. • **Additional Policy AES-2.** New lighted park and recreation facilities shall undergo review to determine whether lighting would impact adjacent residential uses. If such impacts would occur, facilities shall remain either unlighted, or lighting shall be limited either by timing or location, as appropriate.	
AIR QUALITY		
Buildout would accommodate a population of up to 10,500~~10,400~~. SACOG projects a population of 12,000 for Loomis in 2020. General Plan	The proposed General Plan includes the following policies intended to promote regional air quality: • **Policy CRE (Natural Resources) 3.**	**Significant:** Implementation of these measures as they relate to future development projects in Loomis would be expected to reduce air emissions associated

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
buildout would be less than anticipated by regional growth forecasts, which form the basis for regional air quality planning efforts. Individual projects will result in significant impacts requiring mitigation. Impacts would likely occur during both construction and operation phases, and would be exacerbated by cumulative regional development and the associated increase in automobile traffic that would result. Emissions for other equipment would also contribute impacts.	Loomis shall contribute toward the attainment of State and Federal air quality standards in the Sacramento Valley Air Basin. • **Policy CE (Bicycle Facilities) 1.** The Town shall promote bicycle travel, as appropriate, and shall pursue all available sources of funding for the development and improvement of bicycle facilities. • **Policy CE (Transit Service) 1.** The Town will promote and support a safe, efficient, and coordinated public transit system that meets residents' needs, reduces congestion, improves the environment, and helps provide a viable non-automotive means of transportation in and through the Town of Loomis. • **Policy CE (Transit Service) 2.** The Town should work with Placer County Transit and other transit providers to plan and implement public transportation services within the Town that are timely, cost-effective, and responsive to growth patterns and transit demand. • **Policy CE (Transit Service) 4.** The Town should support efforts to provide demand-responsive service ("paratransit") and other transportation services for those unable to use conventional transit. Implementation of these policies would serve to reduce overall air quality impacts. To minimize air quality impacts from individual projects in the Town, it is recommended that the following policies be incorporated to ensure that the effects of land development on local and regional air quality are considered and mitigated to the extent feasible: • **Additional Policy AQ-1.** The Town shall require carbon monoxide modeling for development projects that, in combination with regionally cumulative traffic increases, would result in a total of 800 or more trips at an affected intersection or cause the level of service to drop to D or lower. • **Additional Policy AQ-2.** The Town shall support the Placer County Air	with buildout under the Draft General Plan to the extent feasible. However, impacts associated with individual development projects, and their contribution to decreased air quality, would remain significant and unavoidable.

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	Pollution Control District in its efforts to develop a feasible program to meet emission reduction requirements during the environmental review of all development proposals whose emissions exceed County significance thresholds. • **Additional Policy AQ-3.** The Town shall encourage that large residential projects be phased or timed to be coordinated with development that provides primary wage-earner jobs. • **Additional Policy AQ-4.** If an initial air quality screening indicates that emissions of any pollutant could exceed 10 pounds per day, the Town shall require such development projects to submit an air quality analysis to Placer County APCD for review. Based on the analysis, the Town may require appropriate mitigation measures consistent with the latest version of the AQAP or other regional thresholds of significance adopted for the air basin. • **Additional Policy AQ-5.** New development shall pay its fair share of the cost to provide alternative transportation systems, including bikeways, pedestrian paths, and bus stop facilities. • **Additional Policy AQ-6.** The Town shall require that new developments dedicate land sufficient for park-and-ride lots, when the location is appropriate for such facilities.	
BIOLOGICAL RESOURCES		
Future development within the Town would occur near streams, creeks, and within other areas that would adversely impact biological resources. Specifically, the following impacts could occur when individual developments are implemented: • Removing oak trees • Filling wetlands • Creating barriers to wildlife movement or migration. • Destroying or disturbing active raptor bird nests • Removing habitat, including grasslands,	The proposed General Plan includes the following policies intended to protect biological resources: • **Policy CR (Natural Resources) 1.** The streams of Loomis are among the most significant and valuable of the Town's natural resources. Development adjacent to streams shall be designed, constructed, and maintained to avoid adverse impacts on riparian vegetation, stream bank stability, and stream water quality to the maximum extent feasible. These policies shall apply to all watercourses shown as blue lines on the most recent United States Geological Survey (USGS) 7.5-minute topographic quadrangle maps applicable to the Town. a. Proposed structures and grading	**Significant:** Implementation of these policies, in combination with County ordinances, and state and federal regulatory protection, would reduce impacts to the extent possible. However, individual projects, as they are developed, could result in significant unavoidable impacts, which would be identified through the regulatory processes set forth, in part through the General Plan. Increased cumulative development throughout the region would also contribute to significant unavoidable impacts to biological resources.

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
• Adversely impacting species associated with these habitats.	shall be set back the greater of: 100~~50~~ feet from the outermost extent of riparian vegetation as defined in the Zoning Ordinance; ~~100 feet from the centerline of the stream~~; or outside of the 100-year flood plain. Development shall be setback from ephemeral or intermittent streams a minimum of 50 feet, to the extent of riparian vegetation, or to the 100-year flood plain, whichever is greatest. ~~A~~ lLesser setbacks may be approved where site-specific studies of biology and hydrology, prepared by qualified professionals approved by the Town, demonstrate that a lesser setback will provide equal protection for stream resources and will not increase the risk of flooding. b. Proposed development shall include surface water drainage facilities that are designed, constructed, and maintained to ensure that the increased runoff caused by development does not contribute to the erosion of stream banks, or introduce pollutants into watercourses. c. Land uses and development within the setback areas required by this policy shall be limited to: the grazing of livestock at half or less of the animal densities allowed by the Zoning Ordinance; open wire fencing to confine livestock; bridges; public utilities and infrastructure; and other uses allowed by the applicable zoning district as permitted or conditional uses, with conditional use permit approval. d. The following activities are prohibited within stream corridor setbacks: filling or dumping; the disposal of agricultural wastes; channelization or dams; the use of pesticides that may be carried into stream waters; grading, or the removal of natural vegetation within the required setback area, except with grading permit approval. • **Policy CR-(Natural Resources)-2.** Individual heritage trees and significant	

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	stands of heritage trees shall be preserved. Healthy native trees shall be removed or significantly trimmed only when necessary because of safety concerns, conflicts with utility lines and other infrastructure, the need for thinning to maintain a healthy stand of trees, or where there is no feasible alternative to removal. Proposed development shall be designed, constructed, and maintained to preserve individual heritage trees and significant stands of heritage trees, and provide for the protection of root zones and the continuing health of the trees. When trees are removed, they shall be replaced in sufficient numbers to maintain the volume of the Town's overall tree canopy over a 20-year period. Tree removal within stream corridors is also subject to the above policy on stream corridor protection. • **Policy CR-(Natural Resources)-4.** Loomis will work cooperatively with state, regional, and local agencies in protecting natural resources. In addition, the Conservation of Resources Element includes the following implementation measure: • The Town shall prepare and adopt a Tree Protection Ordinance which expands the current Heritage Tree Ordinance to identify specific species of trees to be protected and preserved, criteria and permit requirements for tree removal, requirements for the replacement of removed trees and maintenance of the Town's overall tree canopy, and requirements for the protection of retained trees during development project construction, and their long-term maintenance. Implementation of these policies would serve to reduce overall impacts to biological resources. To minimize impacts from individual projects in the Town, it is recommended that the following policies be incorporated to ensure that the effects of development on biological resources are mitigated to the extent feasible: • **Additional Policy BIO-1.** The Town shall encourage the use of natural	

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	stormwater drainage systems to preserve and enhance existing natural features. The Town shall promote flood control efforts that maintain natural conditions within riparian areas. • **Additional Policy BIO-2.** The Town shall require that industrial and commercial uses that store or use hazardous materials provide a buffer zone sufficient to protect public safety, including the safety of nearby wildlife. • **Additional Policy BIO-3.** The Town shall require that development projects proposing to encroach into a creek corridor or creek/wetland setback to do one or more of the following, in descending order of desirability: a. Avoid the disturbance of riparian vegetation; b. Replace riparian vegetation (on-site, in-kind); c. Restore another section of creek (in-kind); and/or d. Pay a mitigation fee for restoration elsewhere (e.g., wetland mitigation banking program) • **Additional Policy BIO-4.** Where creek or wetland protection is required or proposed, the Town shall require public and private development to: a. Preserve creek corridors and setbacks through easements or dedications. Parcel lines or easements shall be located to optimize resource protection; b. Designate such easement or dedication areas as open space. c. Protect creek corridors and their habitat value by 1) providing adequate setbacks; 2) maintaining creek corridors in their natural state; 3) employing restoration techniques, where necessary and appropriate; 4) using riparian vegetation within creek corridors; 5) prohibit the planting of invasive, non-native plants within creek setbacks; and 6) avoiding tree removal within creek corridors. d. Use techniques that ensure development will not cause or worsen natural hazards near creeks, and will include erosion and sediment control practices such as 1) turbidity screens (to minimize	

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	erosion and siltation); and 2) temporary vegetation sufficient to stabilize disturbed areas. • **Additional Policy BIO-5.** The Town shall discourage grading activities during the rainy season, unless adequately mitigated, to avoid sedimentation of creeks and damage to riparian areas. • **Additional Policy BIO-6.** The Town shall require that newly-created parcels include adequate space outside of wetland and riparian setback areas to ensure that property owners will not place improvements within areas that require protection. • **Additional Policy BIO-7.** The Town shall support the concept of "no net loss" of wetlands though any combination of the following, in decreasing order of desirability: 1) avoidance of riparian habitat; 2) minimization of impacts to the resource; and 3) compensation, in the form of mitigation banking to protect wetland habitat or individual species that rely on this habitat. The Town shall cooperate with regulating agencies to ensure that concerns are adequately addressed. • **Additional Policy BIO-8.** Prior to approval of discretionary development permits involving parcels near significant ecological resource areas, the Town shall require, as part of the environmental review process, a biotic resources evaluation by a qualified biologist. The biologist shall follow accepted protocols for surveys (if needed) and subsequent procedures that may be necessary to complete the evaluation. Significant Ecological Areas shall include, but not be limited to: a. Wetland areas; b. Stream environment zones; c. Suitable habitat for rare, threatened or endangered species, and species of concern; d. Large areas of non-fragmented habitat, including oak woodlands and riparian habitat; e. Potential wildlife movement corridors; and f. Important spawning areas for anadramous fish	

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	• **Additional Policy BIO-9.** Prior to approval of discretionary development permits involving parcels near significant ecological resource areas, project applicants shall demonstrate that upland grading activities will not contribute to the direct cumulative degradation of stream quality.	
CULTURAL RESOURCES		
Development would primarily consist of infill development in already urbanized areas. This is not expected to adversely affect important archaeological or fossil resources. However, retrofitting of historic structures in the downtown area has the potential to adversely affect the historic integrity of these structures. In addition, development in rural areas has the potential to uncover or disturb currently unrecorded archaeological or historic resources.	The proposed General Plan includes the following policies intended to protect cultural resources: • **Policy CR (Cultural Resources)-1.** Loomis shall encourage the reuse and revitalization of historic buildings. Whenever possible, flexibility in development standards allowed by the Historic Building Code shall be offered to developers working with historic properties. • **Policy CR (Cultural Resources)-2.** The demolition of buildings deemed historically or aesthetically valuable shall be prohibited in cases where alternatives for reuse are found to be feasible. • **Policy CR (Cultural Resources)-3.** Loomis shall support the expansion and development of cultural facilities and programs, as a draw for visitors and residents to the downtown core. These measures would generally be expected to avoid impacts to cultural resources. However, it is recommended that the following policies be added to further protect archaeological sites: • **Additional Policy CR-1.** Loomis shall prohibit recreational activities that could damage or destroy archaeological sites in areas where archaeological sites have been identified. • **Additional Policy CR-2.** As part of the environmental review process, the Town shall review all development proposals for their potential to disturb cultural resources. In areas where cultural resources are known to occur, give special consideration to development of facilities that enhance the operation, enjoyment, and	**Less Than Significant:** Implementation of these policies, along with suggested additional policies, would reduce potential general impacts to cultural resources to a less than significant level. In addition, further regulatory protection provided by the state and federal government would provide additional protection.

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	maintenance of these areas.	
GEOLOGICAL PROCESSES		
The following are considered potentially significant geologic impacts associated with future development: • Alteration of topography during construction • Exposure of lives or property associated with new development to geologic hazards	Individual projects will be reviewed for specific impacts and appropriate mitigation measures. The Public Health and Safety Element includes a number of policies to minimize geologic hazards relating to new development in the Town. These include: • **Policy PH&SE 2.** Engineering analysis of new development proposals shall be required in areas with possible soil instability, flooding, earthquake faults, or other hazards, and prohibit development in high danger areas. • **Policy PH&SE 3.** Loomis shall comply with Placer County's Emergency Response Plan, as well as revise the Town Emergency Plan to address Town-specific issues. • **Policy PH&SE 6.** Loomis shall cooperate with Federal, State, and local authorities to ensure that loss due to seismic activity and other natural and man-made disasters is minimized. • **Policy PH&SE 7.** Loomis shall encourage compliance with State requirements for unreinforced masonry buildings and seismic safety. In addition, the following General Plan implementation measures would further mitigate potential impacts: • **Implementation Measure PH&SE 2.** The Town shall identify and inventory its unreinforced masonry buildings. • **Implementation Measure PH&SE 3.** The Town should implement a program of retrofitting existing unreinforced masonry buildings. • **Implementation Measure PH&SE 5.** The highest and most current professional standards for seismic design shall be used in the design of Critical, Sensitive and High-Occupancy Facilities, so that the seismic design of the facilities will not become substandard within a few years. • **Implementation Measure PH&SE 6.** The Town engineer shall establish a	**Less Than Significant:** Implementation of these Public Health and Safety Element policies and implementation measures is anticipated to fully mitigate impacts relating to geologic hazards. No additional mitigation is required. Individual projects, as they are developed, will be subject to geotechnical review, where appropriate, and will implement site-specific mitigation.

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	central repository for the collection and compilation of geologic and soils engineering information related to faults and fault zone studies, groundwater levels, soils characteristics, susceptibility to landslides and liquefaction, and other data as appropriate. • **Implementation Measure PH&SE 10.** The Town should monitor bridges, over and underpasses, and walls in the public right-of-way to ensure safety. • **Implementation Measure PH&SE 11.** The Town shall require, prior to approval of a project located in an area subject to potential seismic hazards (liquefaction, fault rupture, landslides, etc.), a geotechnical report defining and delineating any seismic hazard. • **Implementation Measure PH&SE 12.** The Town shall develop standards and restrictions such as the limits on the types of allowable development, development intensity/density standards, and subdivision design policies for sites subject to seismically-induced landslides or liquefaction, or potential fault rupture areas for identified active and potentially active faults. • **Implementation Measure PH&SE 21.** Emergency preparedness exercises should be conducted at least once every two years. No further policy-related mitigation measures are required.	
HAZARDOUS MATERIALS		
The following are potentially significant impacts of future development: • The exposure of lives or property to hazardous materials from various land uses, including industry that uses hazardous materials; • Exposure to lives or property to risks associated with the transport of such materials. • Exposure of lives and property to risks from the	The following policies are specifically intended to address risks relating to hazardous materials use, storage and transportation: • **Policy PH&SE 3.** Loomis shall comply with Placer County's Emergency Response Plan, as well as revise the Town Emergency Plan to address Town-specific issues. • **Policy PH&SE 8.** Loomis shall continue to train and equip Town personnel to cope with emergency disaster situations, including hazardous	**Significant:** Implementation of these policies would reduce risks associated with hazardous materials use to the extent possible. However, there is little the Town can do to avoid impacts from hazardous materials that are transported through the community. Consequently, impacts from the regional transport of hazardous materials source are considered significant and unavoidable. Potential risks associated with specific facilities involving the use of hazardous

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
transport of hazardous materials	material incidents. • **Policy PH&SE 11.** Town policies concerning the use, storage and transportation of hazardous materials, and regarding underground or above ground storage tanks, should reflect the Placer County Environmental Health Division and the State Regional Water Quality Control Board policies and requirements. In addition, the following implementation measures would further address hazardous materials issues: • **Implementation Measure PH&SE 1.** Loomis shall revise its Town Emergency Plan every five years. • **Implementation Measure PH&SE 19.** All discretionary project applications shall include information involving the proposed use and amounts of, storage, handling, transport and/or disposal of hazardous materials/wastes and any previous use, storage, handling and/or disposal of hazardous materials/wastes. • **Implementation Measure PH&SE 20.** The Town shall develop a list of land uses or businesses that typically use, store or generate hazardous materials/wastes, to be used as a screening tool during the environmental review process. • **Implementation Measure PH&SE 21.** Emergency preparedness exercises should be conducted at least once every two years. Exercises shall be designed to test and upgrade disaster response plans. Disaster planning scenarios and emergency response plans shall include contingencies for: [among other issues] a major release of hazardous materials from a simulated road or rail accident. These measures would generally be expected to minimize impacts related to hazardous materials. However, it is recommended that the following policies be added to provide further direction for processing projects in areas where hazardous materials could be an issue: • **Additional Policy HM-1.** As individual	materials that are proposed in the community in the future would be subject to separate environmental review.

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	development are proposed, the Environmental Health specialist responsible for the project will review lists of hazardous materials provided by the applicant as part of the project description to determine consistency with the State Health and Safety Code. A site visit may be necessary to determine compatibility to surrounding areas. Whether the hazardous material impacts of a project are significant shall be decided on a case-by-case basis and depends on: • *Individual or cumulative physical hazard of material or materials.* • *Amounts of materials onsite, either in use or storage.* • *Proximity of hazardous materials to populated areas and compatibility of materials with neighboring facilities.* • *Federal, State, and local laws, and ordinances, governing storage and use of hazardous materials.* • *Potential for spill or release.* • *Proximity of hazardous materials to receiving waters or other significant environmental resource.* • **Additional Policy HM-2.** The storage, handling and disposal of potentially hazardous waste must be in conformance with the requirements set forth in the following regulations: • *Enabling Legislation – California Administrative Code, Title 22, Division 4, Ch. 30.* • *California Health and Safety Code, Division 20, Chapter 6.5.*	
HYDROLOGY (Water Resources And Flooding)		
The following are potentially significant impacts related to water resources and flooding: • Exposure of lives and property to flood hazard; and • The potential for unreliable water quality or quantity to diminish the health and safety of the community. • The possibility that future water sources may not be available to accommodate buildout under the General Plan	Various policies would determine the appropriate intensities of development for different parts of the planning area to minimize flood risk. The Public Health and Safety Element includes a number of policies to minimize flood hazard and problems related to water issues. These include: • **Policy PH&SE 3.** Loomis shall comply with Placer County's Emergency Response Plan, as well as revise the Town Emergency Plan to address Town-specific issues. • **Policy PH&SE 4.** Per Placer County Flood Control District directive, nNew	**Less Than Significant (*water quality and flooding*):** Implementation of these Public Health and Safety Element policies and implementation measures, in addition to the recommended policy, is anticipated to fully mitigate impacts relating to flood hazards. Water quality impacts would be reduced to less than significant with implementation of proposed policies, in conjunction with NPDES requirements applied to individual projects. **Significant (*water supply*):** Provided that anticipated facilities

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	development shall be prohibited in the future 100-year flood zone based on buildout conditions as determined by FEMA and FIRM maps. Development will be required to adhere to Placer County Flood Control District policies and the Dry Creek Watershed Control Plan. • **Policy PH&SE 5.** New development near stream channels shall be designed so that reduced stream capacity, stream bank erosion, or adverse impacts on habitat values are avoided. In addition, the following General Plan implementation measures would further mitigate potential impacts: • **Implementation Measure PH&SE 1.** Loomis shall revise its Town Emergency Plan every five years. • **Implementation Measure PH&SE 8.** The Town shall work with property owners to maintain floodplains~~floodways~~ critical to the safety of neighboring properties. • **Implementation Measure PH&SE 9.** The Town engineer shall develop a hazards map of the town, with sufficient detail to be useful for engineering purposes. • **Implementation Measure PH&SE 10.** The Town should monitor bridges, over and underpasses, and walls in the public right-of-way to ensure safety. • **Implementation Measure PH&SE 13.** The Town shall develop standards and restrictions within identified floodplains or areas subject to inundation. These might include subdivision design, setback requirements, and development intensity/density standards. • **Implementation Measure PH&SE 14.** The Town should work with property owners to clear chronically debris-clogged culverts and channels on an annual basis to minimize upstream flooding potential. • **Implementation Measure PH&SE 21.** Emergency preparedness exercises	expansions are completed, impacts related to water supply would be reduced to a less than significant level. Otherwise, impacts are potentially significant and unavoidable.

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	should be conducted at least once every two years. Exercises shall be designed to test and upgrade disaster response plans. Disaster planning scenarios and emergency response plans shall include contingencies for [among other issues] a major flood event. These policies and implementation measures would reduce flood and water resource related impacts. In addition, the following new policies shall be added: • **Additional Policy H-1.** Further channelization and/or banking of creeks or streams within the planning area shall be discouraged, unless no other alternative is available to minimize flood risk. Setbacks from flood sources shall be the preferred method of avoiding impacts. • **Additional Policy H-2.** Site-specific recommendations of the Town's Drainage Master Plan, upon completion, shall be applied to individual development projects as appropriate. In addition, **Implementation Measure PH&SE 13** should be reworded to address standards in areas that are potentially inundated by floods, rather than specific impacts within the 100-year flood zone. As noted in **Policy PH&SE 4**, development is prohibited in the 100-year flood zone. The change in the implementation measure is necessary to remove a potential contradiction.	
LAND USE		
The following are potentially significant land use of new development: • Land use incompatibility between residences and industrial uses; • Incompatibility between rural character and second residential units • Encroachment and conversion of agricultural lands to non-agricultural uses; • Access to new commercial and industrial areas could adversely affect residences;	The following Draft Land Use Element policies address potential impacts: • **Policy LUE D.1.** Loomis shall allow property owners the "right-to-farm" their parcels through the protection and operation of agricultural land uses. • **Policy LUE D.3.** Loomis shall use zoning designations to protect properties used for agricultural operations from encroachment by urban development. • **Policy LUE E.11.** Multi-family residential areas shall be designed to be compatible with nearby single family	**Less Than Significant:** Implementation of proposed policies, in conjunction with policies recommended in this EIR, is anticipated to fully mitigate impacts relating to land use conflicts. Please also refer to the sections of this EIR concerning noise and visual resources. No additional mitigation is required.

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
Based on the proposed land use plan, potential incompatibilities could occur at the following locations: • West of Swetzer Road (industrial/residential interface); • North of Brace Road (commercial/residential interface) • Along Secret Ravine, south of I-80 (commercial/residential interface) • Sierra College Boulevard, near Bankhead Road (commercial/residential interface) • Along Taylor Road (commercial/industrial/residential interface)	residential neighborhoods in terms of height and massing, and overall design. Multi-family residential development shall not be permitted on arterials serving as entryways to the Town unless substantial setbacks and landscaping are provided. • **Policy LUE E. (second residential units).** The General Plan contains policies limiting the size and distribution of second residential units. • **Policy LUE F.9.** Loomis shall not allow new industrial uses that will adversely impact either the environment or surrounding land uses. • **Policy LUE G.1.** This policy relates to the proposed Business Park designation northeast of Sierra College Boulevard and Taylor Road. According to the policy, "*Business park development shall require access from Sierra College Boulevard, with no access to the site through the residentially-designated areas to the north and west.*" Further, "*proposed development shall be separated from the north and west property lines by a buffer of dense landscaping at least 50 feet in width. Development adjacent to the buffer shall be limited to low-profile, one-story structures. Parking areas shall be separated from the buffer by buildings. No outdoor storage or business activity areas shall be allowed, except for outdoor sitting, eating and recreation areas for employees.*" • **Policy LUE G.2.** This policy relates to the proposed General Commercial designation along I-80 between the Raley's Center and King Road. According to the policy, *"proposed development shall be planned to provide a gradual transition of intensity between development adjacent to I-80 and the existing residential areas to the north, to minimize the potential for land use conflicts with residential uses, and problems for residents. These sites should be developed with a mixture of land uses consisting of three tiers: general commercial and/or office uses should be located adjacent to Raley's Center; low profile office structures should be placed in a second tier after*	

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	the commercial uses; and medium- to medium-high density residential should be located adjacent to the existing residential areas to the north of this site." • **Policy LUE G.5.** This policy relates to the proposed Commercial south of I-80. According to the policy, *"primary access to commercial development shall be from Horseshoe Bar Road, with secondary access on Brace Road."* • **Policy LUE G.4.** This policy relates to the proposed General Commercial designation on Taylor Road Northwest of Sierra College Boulevard. According to the policy, "*these parcels should be developed with commercial uses along the Taylor Road frontage, with office uses or multi-family residential behind the commercial, to buffer the adjacent single-family residential uses from the noise, glare, and activities associated with commercial uses."* In addition to these proposed measures, the following policies should be added to the General Plan to further minimize land use impacts: • **Additional Policy LU-1.** The boundaries of proposed land use designations should be coincident with existing property boundaries, to the extent possible. One possible exception may be when the frontage of a large lot along a major arterial would be inappropriate for residential uses, while much of the remainder could be suited for such use. • **Additional Policy LU-2.** Commercial land uses shall be discouraged away from the Town's core area, except when property is demonstrably unsuitable for residential use because of proximity to noise sources such as major arterials or railroad lines.	
NOISE		
The following are considered potentially significant noise impacts: • Noise levels for land uses that exceed the compatibility matrix in Table N-2;	The following proposed General Plan policies address potential noise impacts: • **Policy PS&SE (Noise)-1.** New commercial and industrial development in the Town shall be sited and designed to minimize the potential for harmful or	**Significant:** Implementation of proposed policies is anticipated to mitigate impacts relating to noise to the extent possible. However, it is likely that noise increases associated with cumulative development would cause

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
• The potential for industrial noise events to effect nearby residential land uses; and • The potential for nuisance noise to affect nearby land uses; Buildout under the Draft General Plan would result in noise increases, both in the short-term (construction noise) and long-term (traffic noise). Additional commercial and industrial development could include truck loading and warehouse areas, both of which could contribute to overall noise increases in the planning area.	annoying noise to create conflict with existing land uses. • **Policy PS&SE (Noise)-2.** Loomis shall encourage the mitigation of noise impacts in all new developments as necessary to maintain the quiet, rural ambiance of the Town. • **Policy PS&SE (Noise)-3.** An acoustical analysis shall be required for new residential structures located within the projected noise contour of 65~~60~~ dBA Ldn, showing that the structures have been designed to limit intruding noise in interior rooms to an annual level of 45 dBA Ldn. • **Policy PS&SE (Noise)-4.** Individual noise exposure analysis shall be required for proposed development projects as part of the environmental review process, to ensure that the Town's noise standards are meet. The use of mitigation measures (noise buffers, sound insulation) may be required to reduce noise impacts to acceptable levels. • **Policy PS&SE (Noise)-5.** Loomis shall prohibit the construction of sound walls to mitigate noise impacts, unless it is the only feasible alternative. New sensitive noise receptors shall not be permitted if the only feasible mitigation for noise impacts is a sound wall. • **Policy PS&SE (Noise)-6.** Where noise mitigation is necessary, the following order of preference among options shall be considered: distance from the noise source; muffling of the noise source; design and orientation of the receptor; landscaped berms; landscaped berms in combination with walls. • **Policy PS&SE (Noise)-7.** Use the land use/noise compatibility matrix shown on Figure S-4 (Table N-3 of the EIR) to determine the appropriate ness of land uses relative to roadway noise. • **Policy PS&SE (Noise)-8.** Work with Caltrans to install mitigation elements along freeways and highways adjacent to existing residential subdivisions or noise-sensitive uses to reduce noise impacts.	significant and unavoidable impacts, which cannot be fully mitigated to a less than significant level.

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	• **Policy PS&SE (Noise)-9.** Provide for alternative transportation modes such as bicycle paths and pedestrian walkways to minimize the number of automobile trips. • **Policy PS&SE (Noise)-10.** Require that new equipment and vehicles purchased by the Town comply with noise performance standards consistent with the best available noise reduction technology. • **Policy PS&SE (Noise)-11.** Work with public transit agencies to ensure that the buses, vans, and other vehicles used do not generate excessive noise levels. • **Policy PS&SE (Noise)-12.** Consider the use of rubberized asphalt paving material for future road paving and re-paving. Studies have indicated that such paving material can result in a 3 to 5 dBA reduction in noise. • **Policy PS&SE (Noise)-13.** Consider the use of "traffic calming" devices to reduce traffic noise in residential areas, when supported by the residential community in question.. • **Policy PS&SE (Noise)-14.** Work with the Union Pacific Railroad to properly maintain lines and establish operational restrictions during the early morning and late evening hours to reduce impacts in residential areas and other noise sensitive areas. • **Policy PS&SE (Noise)-15.** Require that automobile and truck access to industrial and commercial properties adjacent to residential areas be located at the maximum practical distance from the residential area. • **Policy PS&SE (Noise)-16.** Require that all parking for industrial and commercial uses adjacent to residential areas be enclosed within a structure or buffered by walls. • **Policy PS&SE (Noise)-17.** Limit the use of leaf blowers, motorized lawn mowers, parking lot sweepers, or other high-noise equipment on commercial	

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	properties if their activity will result in noise which adversely affects residential areas. • **Policy PS&SE (Noise)-18.** Require that the hours of truck deliveries to industrial and commercial properties adjacent to residential uses be limited unless there is no feasible alternative or there are overriding transportation benefits by scheduling deliveries at another hour. • **Policy PS&SE (Noise)-19.** Require that construction activities adjacent to residential units be limited as necessary to prevent adverse noise impacts. • **Policy PS&SE (Noise)-20.** The Town should develop standards for acceptable nuisance noise levels for both day and night. • **Policy PS&SE (Noise)-21.** Future industrial or commercial development in areas determined to be near noise-sensitive land uses shall be subject to an acoustical analysis to determine the potential for stationary source noise impacts to neighboring land uses. In addition, the following proposed General Plan implementation measures would further reduce noise impacts: • **Implementation Measure PS&SE (Noise)-1.** Establish exterior land use noise compatibility standards in the Zoning Ordinance for all new development based on the guidelines shown on Figure S-4 (EIR Table N-3) and Table S-3 of this Element. • **Implementation Measure PS&SE (Noise)-2.** Incorporate in the Zoning Ordinance requirements that limit maximum interior levels to 45 dBA Ldn in all new residential construction. • **Implementation Measure PS&SE (Noise)-3.** For new development within the generalized 65~~60~~ dBA Ldn noise contour as shown in Figure S-6 of this Element, project applicants shall fund site-specific noise studies to mitigate project impacts. The determination of whether a project site is within the 65~~60~~ dBA Ldn contour is the responsibility of the Planning Department. The required	

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	noise analysis shall: • Include field measurements by a qualified environmental scientist/acoustical engineer to determine a more precise location of existing and projected future noise levels (based on traffic projections included in the Circulation Element or as accepted by the Town); and • Identify and commit to measures to mitigate noise impacts (by siting of structure outside of high noise levels, insulation, attenuation, walls or buffers, landscape, or other acceptable techniques) if within the 65~~60~~ dBA contour. • **Implementation Measure PS&SE (Noise)-4.** When development is subject to high noise levels requiring mitigation, the following measures shall be considered and preference shall be given where feasible in the following order: 1. Site layout, including setbacks, open space separation and shielding of noise sensitive uses with non-noise-sensitive uses. 2. Acoustical treatment of buildings. 3. Structural measures: construction of earthen berms and/or wood or concrete barriers. • **Implementation Measure PS&SE (Noise)-5.** Incorporate into the Zoning Ordinance standards that protect inhabitants from impacts of exterior noise, prevent the transference of interior noise to the outside, prevent transference of noise between residential units and individual businesses in multi-tenant buildings, and prevent transference of noise between commercial and residential uses in mixed structures. Standards for insulation, windows, building materials, walls and roofs shall be included. • **Implementation Measure PS&SE (Noise)-6.** Include in the Zoning Ordinance standards and requirements for parking structures and lots to prevent noise effects on-site and on adjacent noise sensitive uses. These could include the use of buffers	

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	containing landscape and/or sound walls, use of sound absorbing materials to minimize sound amplification and transmission, enclosure of the façade of parking structures facing a residence, limitation of the hours of operation of surrounding surface parking lots, and other appropriate techniques. • **Implementation Measure PS&SE (Noise)-7.** The Town shall review development proposals according to their potential noise impacts on abutting uses and impacts by abutting uses in accordance with the standards and requirements stipulated by this Element and incorporated into the Zoning Ordinance • **Implementation Measure PS&SE (Noise)-8.** The Town shall consider the use of temporary noise barriers, limited hours of operation, limiting times of year for construction near schools to reduce construction-related noise. • **Implementation Measure PS&SE (Noise)-9.** The Town shall review the street layout of proposed residential subdivisions with the objective of reducing traffic volumes and through trips as a means to reduce noise levels. The use of road dips, diagonal parking, one-way streets, speed humps, and other traffic controls shall be considered to reduce vehicular travel and speed, provided that engineering and safety standards are met. If determined to be feasible, rubberized asphalt paving material may be required for new roads. • **Implementation Measure PS&SE (Noise)-10.** Speed limits are legally set in accordance with the prevailing speed of traffic based on engineering studies. However, when feasible, consistent and necessary, the reduction of speed limits on arterials should be used to decrease ambient noise levels. • **Implementation Measure PS&SE (Noise)-11.** The Town shall evaluate the noise impacts of vehicles on adjacent residential properties as a part of the development and environmental review process for all commercial and manufacturing uses. Where truck deliveries would have the potential to	

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	create noise exceeding 6560 dBA CNEL at an adjacent noise sensitive use, the inclusion of noise mitigation techniques such as the use of sound wall or enclosure of delivery areas shall be required. • **Implementation Measure PS&SE (Noise)-12.** To reduce noise associated with truck traffic, the Town should implement the following noise reduction strategies: 1. The Town and Caltrans shall consider limitations on hours of operation and other truck operations that could be limited to reduce noise impacts. 2. The Town should encourage the use of established designated truck routes that avoid residential areas and confine truck traffic to major thoroughfares. 3. The Town should post designated areas and times to prohibit the use of jake brakes along established truck routes adjacent to sensitive uses. • **Implementation Measure PS&SE (Noise)-13.** Support the efforts of the California Department of Transportation and local transportation agencies in developing noise reduction measures for Interstate 80, including elevating or depressing roads, or if no feasible alternatives exist, sound barrier walls. • **Implementation Measure PS&SE (Noise)-14.** Maintain a data file documenting existing and future noise conditions, using the contour map contained in this Plan. As noise assessments are conducted for proposed projects or other noise studies are performed, the data base shall be updated. The noise data shall be updated entirely at least once every five years. • **Implementation Measure PS&SE (Noise)-15.** Work with railroad operators to determine when noise controls may be necessary due to the adjacency of railroad lines to residential uses. • **Implementation Measure PS&SE**	

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	(Noise)-16. The Town shall enforce the State Noise Insulation Standards (California Code of Regulations, Title 24) and Chapter 35 of the Uniform Building Code (UBC). • **Implementation Measure PS&SE (Noise)-17.** Future industrial or commercial development in areas determined to be near noise-sensitive land uses, as shown in Figure S-6, shall be subject to an acoustical analysis at the discretion of the Planning Director, to determine the potential for stationary source noise impacts to neighboring land uses. • **Implementation Measure PS&SE (Noise)-18.** Where noise-sensitive land uses are proposed in areas exposed to existing or projected noise levels in excessive of the standards contained in Tables S-3 and S-4. The Town shall require an acoustical analysis as part of the environmental review process so that noise mitigation may be included in the project design. At the discretion of the Planning Director, the requirement for an acoustical analysis may be waived if all of the following conditions are satisfied: a. The development is for less than five single-family dwellings or less than 10,000 square feet of total gross floor area for office buildings, churches, or meeting halls; b. The noise source in question consists of a single roadway or railroad for which up-to-date noise exposure information is available. An acoustical analysis will be required if the noise source is a stationary noise source, or if there are multiple noise sources that could affect the project; c. The projected future noise exposure at the exterior of proposed buildings or outdoor activity areas does not exceed 65~~60~~ dBA Ldn; d. The topography of the area is essentially flat; and e. Effective noise mitigation, as determined by the Planning Director, is incorporated into the project design. Such measures can include, but are not limited to, the	

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	use of building setbacks, building orientation, noise barriers. If closed windows are required for compliance with interior noise level standards, air conditioning or a mechanical ventilation system will be required.	
PUBLIC SERVICES		
The following are considered potentially significant public services impacts: • Increased demand for various public services, including police, fire, education and library services; and • Increased demand for recreational facilities.	The following proposed General Plan policies are intended to address impacts related to the provision of public services. • **Policy LUE (Parks and Recreation) 1.** The Town will pursue all available funding mechanisms to provide a multi-use community center. • **Policy LUE (Parks and Recreation) 2.** The Town will work toward providing additional park and recreation facilities to meet the needs of Loomis residents as the Town's population increases. • **Policy LUE (Parks and Recreation) 3.** Loomis shall adopt Town park and recreational standards to guide and promote the development of recreational open space, in addition to working with Placer County in the provision of public recreation facilities. • **Policy LUE (Parks and Recreation) 4.** New residential developments shall provide for the recreational open space needs of their residents. • **Policy LUE (Parks and Recreation) 5.** Loomis shall encourage the compatible recreational use of riparian and stream corridors, where feasible. • **Policy LUE (Parks and Recreation) 6.** Loomis shall support and cooperate with volunteer groups and organizations that provide recreational activities for Town residents. • **Policy LUE (Parks and Recreation) 7.** Open space areas shall be designed as part of an integrated citywide network, in conjunction with bicycle, pedestrian and equestrian trails. • **Policy LUE (Parks and Recreation) 8.** Loomis will continue to work with local school districts and the County to	**Less Than Significant:** Implementation of these policies and measures would ensure the provision of public services as the Town builds out under the General Plan. No additional measures would be required.

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	extend the park and recreation opportunities of Loomis residents through joint-use facilities. • **Policy PS (Public Services) 1.** Loomis will work toward achieving and maintaining acceptable levels of municipal services, including public safety, roadway maintenance, and administrative services. Loomis will cooperate with regional public service agencies to attain adequate service levels for water distribution, sewerage services, flood management, and solid waste collection. • **Policy PS (Public Services) 2.** Non-residential and higher density residential development shall not be expanded into areas lacking public services infrastructure until existing vacant land with these services within the Town limits is utilized, or proposed development ensures the extension of necessary infrastructure through actual construction or payment of fees. • **Policy PS (Public Services) 3.** Loomis shall work with the school districts (Placer Union High School District and Loomis Union School District) in reviewing district land use decisions involving the provision of adequate educational facilities for Loomis students. • **Policy PS (Public Services) 4.** Proposed development shall be connected to public water supply and sewage disposal systems as follows: a. Any dwelling unit proposed within 300 feet of existing community water supply or sewage disposal service shall be connected to that service prior to occupancy, except where the Town Manager determines that connection is infeasible because of elevation differences or insufficient line capacity. The 300-foot distance shall be measured from the property line of the subject parcel that is nearest to the existing water supply or sewage disposal service. b. All development proposed in nonresidential land use designations shall be connected to the community water supply and sewage disposal systems prior to occupancy.	

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	c. Residential subdivisions proposing parcels of 2.2 acres or less shall be connected to the community water supply and sewage disposal systems prior to occupancy. • **Policy PS (Public Services) 5.** Loomis shall work with the solid waste collector (Auburn Placer Disposal Service) in developing a recycling program for Loomis residents. • **Policy CIRC (Circulation) 1.** The Town shall aggressively pursue state and federal funding to implement the primary elements of the Town's Circulation Plan. • **Policy CIRC (Circulation) 2.** The Town shall require proposed new development projects to analyze their contribution to increased vehicle, pedestrian, and bicycle traffic and to implement the roadway improvements necessary to address their impact. • **Policy CIRC (Circulation) 3.** The Town shall assess fees on new development sufficient to cover the fair share portion of development's cumulative impacts on the local and regional transportation system. In addition, the following implementation measures provide further mitigation for potential impacts: • **Implementation Measure LUE (Parks and Recreation) 1.** The Town will evaluate and consider the following financing options to procure park land and recreational facilities, and a multi-use community center. These options are described in detail in the Town of Loomis Parks and Recreation Master Plan, Chapter VI, Financial Plan.) • **Implementation Measure LUE (Parks and Recreation) 2.** The Town will evaluate the existing park land and recreation in-lieu impact fee program and recommend revisions if determined appropriate. • **Implementation Measure LUE (Parks and Recreation) 3.** The Town will evaluate the existing park land and recreation use fee schedule to	

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	determine if amendments to the current program are necessary.	
TRANSPORTATION and CIRCULATION		
The following are considered potentially significant circulation impacts: • The potential for substandard roadway and intersection operations following proposed roadway modifications at General Plan buildout; • Increased roadway safety impacts from increased traffic, particularly in residential areas; • The provision of alternative modes of transportation to serve the community; and • The provision of adequate funding to implement the needed physical roadway improvements .	The following circulation changes are anticipated under the proposed General Plan: • Widen Sierra College Boulevard to 6 lanes north of I-80 (to Bankhead); • Reconstruct the I-80/Sierra College Boulevard interchange; • Widen I-80 from a 6-lane to an 8-lane freeway east and west of Horseshoe bar Road; • Install bike lanes on Taylor Road from Midas Avenue (in Rocklin) to Sierra College Boulevard, and from King Road to the Loomis Town Limits; and • Possibly provide passenger rail service to Loomis. • Swetzer Road extension (from King Road to Sierra College Boulevard); • Boyington Road extension (freeway frontage road from King Road to Horseshoe Bar Road); • Various functional improvements to Taylor Road in the downtown core; • Widen Sierra College Boulevard to 4 lanes north of Bankhead; • Widen Horseshoe Bar Road to 4 lanes, from Boyington Road extension (near I-80) to Horseshoe Bar Road T-intersection; and • Widen Rocklin Road to 4 lanes from Sierra College Boulevard to Barton Road. The following facilities will need additional through lanes for capacity: • Sierra College Boulevard – 4 lanes north of Bankhead Road and 6 lanes south of Bankhead Road. • Horseshoe Bar Road – 4 lanes from Boyington Road Extension to Brace Road. • Rocklin Road – 4 lanes from Sierra College Boulevard to Barton Road. The following are recommended bicycle facility improvements: • Provide westbound on-street bike lane (Class II) on Taylor Road from King Road to Oak Street to match existing	**Significant:** in spite of proposed roadway modifications, significant congestion would occur on the following roadways as a result of cumulative buildout: Taylor Road, Sierra College Boulevard, Horseshoe Bar Road, and King Road **Less Than Significant:** Implementation of the Draft Circulation Element policies, in combination with the specific roadway improvements contained in the Draft Circulation Element, would be expected to mitigate most traffic impacts of future development in the Town. Development of specific road improvements to mitigate the impacts of future development proposals would not be appropriate at this time. Specific improvements will need to be developed as needed in conjunction with future development plans.

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	eastbound facility; • Provide on-street (Class II) facilities on Taylor Road (from King Road to eastern Town Limits and Sierra College Boulevard to western Town Limits), Sierra College Boulevard (within entire Town Limits), Rocklin Road (within entire Town Limits); and • Provide on-street (Class III) facilities on Bankhead Road (King to Sierra College), Saunders Avenue (Bankhead to eastern limit), South Walnut/Shore, Brace Road, and Laird Road. In most cases, these facilities will consist of paved shoulders and appropriate signage. The improvements listed above are part of the proposed Circulation Element, and collectively would reduce potential physical circulation impacts to a less than significant level. The Draft Circulation Element also includes the following policies intended to implement the proposed physical improvements previously described: • **Policy CE (Level of Service)-1.** In order to minimize congestion, maintain Level of Service C on all roads and intersections within the Town of Loomis. Exceptions to this standard are allowed when: 1. The deficiency is substantially caused by "through" traffic, which neither begins nor ends in Loomis, and is primarily generated by non-residents; or 2. The deficiency will be temporary (less than three years), and a fully-funded plan is in place to provide the improvements needed to remedy the substandard condition. Notwithstanding any other General Plan policy or provisions in the vent significant impacts will result from large development on the Town's perimeter, the Town shall make every reasonable effort to have developers adequately mitigate such adverse impacts. • **Policy CE (Roadway Improvement)-1.** Roadway improvements within the Town of Loomis shall conform to the roadway classification system and improvement standards specified in the	

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	current version of the *Town of Loomis Design & Improvement Standards*..	
	• **Policy CE (Bicycle Facility)-1.** The Town shall promote bicycle travel, as appropriate, and shall pursue all available sources of funding for the development and improvement of bicycle facilities.	
	• **Policy CE (Bicycle Facility)-2.** Bicycle facilities shall be provided in compliance with the *Placer County Bikeways Master Plan* (Placer County Transportation Commission, 1988) or subsequent amended versions of that document, as well as on other appropriate routes at the discretion of the Town Council.	
	• **Policy CE (Transit Service)-1.** The Town will promote and support a safe, efficient, and coordinated public transit system that meets residents' needs, reduces congestion, improves the environment, and helps provide a viable non-automotive means of transportation in and through the Town of Loomis.	
	• **Policy CE (Transit Service)-2.** The Town should work with Placer County Transit and other transit providers to plan and implement public transportation services within the Town that are timely, cost-effective, and responsive to growth patterns and transit demand. a. Transit routes should conform to plans established by Placer County Transit, and should generally coincide with major destinations for employment and shopping, the location of major institutions, concentrations of multifamily housing, and other land uses likely to attract public transit ridership. b. Bus routes should follow major roads with service to residential neighborhoods via collector streets. c. Bus stops should be located in conformance with the applicable policies of Placer County Transit.	
	• **Policy CE (Transit Service)-3.** The Town should consider the transit needs of senior, disabled, minority, low-income, and transit-dependent persons in making decisions regarding transit	

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	services and in compliance with the Americans with Disabilities Act. • **Policy CE (Transit Service)-4.** The Town should support efforts to provide demand-responsive service ("paratransit") and other transportation services for those unable to use conventional transit. • **Policy CE (Neighborhood Environment)-1.** The Town shall create and maintain a street system which protects residential neighborhoods from unnecessary levels of traffic, while providing for logical traffic circulation. • **Policy CE (Neighborhood Environment)-2.** The Town shall design streets and approve development applications in such a manner as to prevent and eliminate high traffic flows and parking problems within residential neighborhoods. • **Policy CE (Neighborhood Environment)-3.** The Town shall promote the development of a circulation system that preserves the historic nature and character of neighborhoods and districts, and reinforces neighborhood identity and integrity. • **Policy CE (Neighborhood Environment)-4.** New local streets shall be designed to promote the interconnection of residential neighborhoods while simultaneously discouraging through-traffic within residential neighborhoods. • **Policy CE (Neighborhood Environment)-5.** The Town of Loomis shall establish and maintain a procedure through which local residents can receive assistance in managing and reducing traffic flows through their residential neighborhoods. Such assistance could be technical, the provision of equipment (such as signs) and the labor needed to install such equipment, or provision of enhanced police traffic enforcement in neighborhoods. The Town could also participate in modifying the existing street system to reduce or eliminate	

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	through traffic intrusion into residential neighborhoods. Based on the identified need and available financing, priorities will be established and an appropriate level of resources (including staff time, equipment, and physical improvements) will be committed by the Town. • **Policy CE (Roadway System Funding)-1.** The Town shall aggressively pursue state and federal funding to implement the primary elements of the Town's Circulation Plan. • **Policy CE (Roadway System Funding)-2.** The Town shall require proposed new development projects to analyze their contribution to increased vehicle, pedestrian, and bicycle traffic and to implement the roadway improvements necessary to address their impact. • **Policy CE (Roadway System Funding)-3.** The Town shall assess fees on new development sufficient to cover the fair share portion of development's cumulative impacts on the local and regional transportation system. • **Policy CE (Roadway System Funding)-4.** Prior to acceptance of new local streets by the Town, provisions shall be made for the ongoing maintenance of those facilities. Such provisions could include the establishment of a maintenance district covering the specific roadways identified, or assumption of all maintenance responsibilities by the pertinent homeowners association or other approved organization. • **Policy CE (Roadway Maintenance)-1.** The Town shall assure that the transportation system continues to provide safe, efficient, and convenient access to its residents. • **Policy CE (Roadway Maintenance)-2.** The Town shall provide dependable and adequate resources to maintain and repair the existing system of roads and bridges, according to priorities established within the capital improvement program.	

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	• **Policy CE (Roadway Maintenance)-3.** The Town shall work with the Placer County Transportation Planning Agency (PCTPA) to ensure that the PCTPA's Regional Transportation Plan is coordinated with the Town's Capital Improvement Plan. This coordination will allow access to Federal and State funds, where possible, for road maintenance and improvements. In addition to these policies, the following additional policy is recommended to be added to the General Plan: • **Additional Policy CIRC-1.** If recommended by the Town Engineer after review, and if determined to be feasible, the Town should pursue the construction of a pedestrian bridge over Sierra College Boulevard to address safety impacts. The precise location of such a crossing would be determined after further review.	
UTILITIES		
The following would be considered potential impacts affecting the community: • Buildout may contribute to the need to expand existing landfill facilities; • Buildout would increase demand on wastewater treatment facilities; and • Buildout would hamper the ability of electricity and gas service providers to provide service.	The following proposed General Plan policies would mitigate potential impacts related to the provision of utilities: • **Policy PF (Public Facilities) 1.** Loomis will work toward achieving and maintaining acceptable levels of municipal services, including public safety, roadway maintenance, and administrative services. Loomis will cooperate with regional public service agencies to attain adequate service levels for water distribution, sewerage services, flood management, and solid waste collection. • **Policy PF (Public Facilities) 2.** Non-residential and higher density residential development shall not be expanded into areas lacking public services infrastructure until existing vacant land with these services within the Town limits is utilized, or proposed development ensures the extension of necessary infrastructure through actual construction or payment of fees. • **Policy PF (Public Facilities) 4.** Proposed development shall be connected to public water supply and sewage disposal systems as follows:	**Less Than Significant:** Proposed General Plan policies, in combination with suggested additional policies, would mitigate general impacts to utilities to less than significant levels. Individual projects would still need to be reviewed to determine if their impacts would be significant, particularly as regional development continues.

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	a. Any dwelling unit proposed within 300 feet of existing community water supply or sewage disposal service shall be connected to that service prior to occupancy, except where the Town Manager determines that connection is infeasible because of elevation differences or insufficient line capacity. The 300-foot distance shall be measured from the property line of the subject parcel that is nearest to the existing water supply or sewage disposal service. b. All development proposed in nonresidential land use designations shall be connected to the community water supply and sewage disposal systems prior to occupancy. c. Residential subdivisions proposing parcels of 2.2 acres or less shall be connected to the community water supply and sewage disposal systems prior to occupancy. • **Policy PF (Public Facilities) 5.** Loomis shall work with the solid waste collector (Auburn Placer Disposal Service) in developing a recycling program for Loomis residents. In addition to these policies, the following additional policies are recommended to be added to the General Plan: **Additional Policy U-1.** The Town should support source reduction and recycling efforts through the use of recycled products in all Town departments, whenever economically and technically feasible. **Additional Policy U-2.** If in the future adequate landfill space cannot be found to meet the Town's needs, no new development shall be approved until such time as adequate landfill space is identified. **Additional Policy U-3.** New construction and reconstruction/restoration shall consider energy conservation in the selection of building materials, building orientation, and landscaping. **Additional Policy U-4.** The Town shall	

Table ES-1. Summary of Project Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measures	Residual Impact
	identify the potential for energy conservation measures for the use of renewable energy sources and alternatives to fossil fuels. **Additional Policy U-5.** The Town shall actively participate in the energy conservation programs of the local, state, and federal agencies. **Additional Policy U-6.** The Town shall consider the use of alternative energy sources for all public facilities.	

1.0 INTRODUCTION

This is a program environmental impact report (EIR) that examines the environmental effects of the proposed update of the Town of Loomis General Plan. The document has been prepared in accordance with the requirements of the California Environmental Quality Act (CEQA) and the *State CEQA Guidelines*. According to Section 15168(a) of the *State CEQA Guidelines*, a program EIR should be prepared on a series of actions that can be characterized as one large project. A general plan update is the type of project for which the use of program EIRs is specifically intended.

In any general plan, the Land Use Element guides the magnitude and location of future development. As a rule, impacts stemming from the implementation of a general plan arise from development envisioned by the Land Use Element. All other elements are by their nature intended to address and mitigate these impacts, whether through the construction of new roads (Circulation Element), noise barriers (Public Health and Safety Element) or the protection of natural resources (Conservation of Resources Element). Therefore, rather than creating environmental impacts, the other General Plan elements primarily serve to alleviate potential environmental impacts.

The Land Use Element, on the other hand, has a somewhat different role in that it specifically allows for development within the Town's planning area. Consequently, unlike the other General Plan elements, it facilitates development rather than placing restrictions on development to minimize environmental or other effects. The effects of buildout under the Land Use Element are therefore analyzed in greater detail in this EIR, with specific references to the various implementing goals and policies that pertain to that impact. In summary, this EIR evaluates the impacts of the proposed Land Use Element, the potential for this and the other elements to mitigate these impacts, and proposes additional mitigation measures in the form of policies, roadways, or land use distributions.

1.1 PURPOSE/LEGAL AUTHORITY

This EIR has been prepared in accordance with the California Environmental Quality Act (CEQA), and the *State CEQA Guidelines*. In accordance with Section 15121(a) of the *State CEQA Guidelines* (California Administrative Code, Title 14, Division 6, Chapter 3), the purpose of an EIR is to serve as an informational document that:

> *will inform public agency decision-makers and the public generally of the significant environmental effect of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.*

This EIR fulfills the requirements for a Program EIR. As provided in Section 15168 of the CEQA Guidelines, a Program EIR may be prepared on a series of actions that may be characterized as one large project. The use of a Program EIR can allow a Lead Agency to consider broad policy alternatives and program-wide mitigation measures at an early time when an agency has greater flexibility to deal with basic problems or cumulative impacts. A specific format for a program EIR is not specified in the CEQA Guidelines. Instead, there is flexibility allowed in its presentation.

A Program EIR is not intended or required to provide project-level mitigation where impacts are identified. The preparation of a Program EIR does not eliminate the need for environmental review for individual development projects that may be contemplated under the General Plan Update. Instead, it is intended to identify general impacts that may be likely to occur, noting general locations or conditions in the community where such impacts could happen. The purpose of the program EIR approach is to lay the groundwork for determining what level of additional environmental review would be needed for individual development projects.

A program EIR is by its nature general in approach. Future development projects in the community are generally not well understood at the time a program EIR is prepared. Consequently, the analysis must also be general, as must the mitigation measures, which in this case would be framed as General Plan policies. Under CEQA, a program EIR cannot be as specific as a project EIR (*CEQA Guidelines* Section 15146(b)), nor can it speculate on impacts that cannot be reasonably anticipated (*CEQA Guidelines* Section 15145).

1.2 SCOPE AND CONTENT

In accordance with the provisions of the *State CEQA Guidelines*, the Town of Loomis Planning Department prepared an Initial Study on the proposed project. The Initial Study, contained in this Draft EIR as Appendix A, determined that the proposed project could result in significant adverse effects on the environment and, therefore, an EIR is required.

The Initial Study was circulated with a Notice of Preparation (NOP) of an EIR in January 2000. Responses to the NOP are contained in Appendix A. The following issues were identified by the Initial Study as having potentially significant impacts.

- *Aesthetics*
- *Air Quality*
- *Biological Resources*
- *Cultural Resources*
- *Geological Processes*
- *Hazardous Materials*
- *Hydrology*
- *Land Use*
- *Noise*
- *Public Services*
- *Transportation and Circulation*
- *Utilities*

This EIR evaluates potential impacts in each of these areas. It addresses both site-specific and cumulative impacts of the proposed project in accordance with the provisions set forth in the *State CEQA Guidelines*. (It should be noted that because the project includes development of an entire General Plan, project impacts are equivalent to cumulative impacts.) The focus of this EIR is to address potentially significant environmental issues identified in the Town's Initial Study and to recommend feasible mitigation measures, where possible, that reduce or eliminate significant environmental impacts. A discussion of potential growth-inducing impacts of the project is also provided, as required by CEQA.

The alternatives section of this EIR has been prepared in accordance with Section 15126(d) of the *CEQA Guidelines*. The alternative analysis examines a range of reasonable alternative uses that could feasibly attain the basic objectives of the proposed project and are capable of eliminating or reducing some of the significant adverse environmental effects associated with the project.

1.3 LEAD AND RESPONSIBLE AGENCIES

The Town of Loomis is considered the lead agency in preparing this EIR and will be responsible for the approvals that would allow the development.

Section 15381 of the *State CEQA Guidelines* defines a "responsible agency" as:

a public agency which proposes to carry out or approve a project, for which a Lead Agency is preparing or has prepared an EIR or Negative Declaration." For purposes of CEQA, responsible agencies include all public agencies other than the lead agency that have discretionary approval authority over the project.

Some proposed transportation improvements require the cooperation of several other agencies. These include the Union Pacific Railroad, Placer County, the City of Rocklin and Caltrans. However, they do not have discretionary approval over the adoption of the General Plan Update. Consequently, they are not considered responsible agencies per the *CEQA Guidelines*.

1.4 INTENDED USES OF THE EIR

This EIR is intended to be used as an informational source that provides full disclosure of the environmental consequences associated with the discretionary actions required to implement the General Plan Update. This EIR will be used by the Town of Loomis, other reviewing agencies and the general public in their review of the proposed project.

2.0 PROJECT DESCRIPTION

The proposed project is an update of the Town of Loomis' General Plan, first adopted in 1987. Loomis is located in Placer County, midway between the cities of Roseville and Auburn, northeast of Sacramento (Figure 1). This General Plan Update responds to changes in the community and surrounding areas since it was incorporated in 1984, and in the years since the adoption of the first General Plan. The Community Development Element addresses the community's vision for development during the planning horizon, identified as the year 2020. It includes a map of proposed urban boundaries and planned land uses. It also contains goals, objectives and policies that will govern the growth of the Town of Loomis and the management of its resources. The updated General Plan also includes five other elements: Public Services Facilities & Finances, Circulation, Conservation of Resources, Public Health & Safety, and Housing. As required under state law, these elements address the seven mandated General Plan issues (Land Use, Circulation, Conservation, Open Space, Noise, Safety, and Housing).

The magnitude of buildout under the updated General Plan would be the result of two factors: 1) development of vacant lands within the Town; and 2) the redesignation of some lands within the Town to accommodate development different than what is anticipated in the previous general plan. At this time, an expansion of the Town's existing Sphere of Influence is not anticipated. (The Town's existing boundaries are the same as its Sphere of Influence.)

Under the proposed General Plan Update, the ultimate buildout population could be as much as 10,500~~10,400~~, a 72~~70~~% increase over the existing population of 6,100. About 480,000 square feet of new commercial development and 800,000 square feet of new industrial development would likely occur under the General Plan Update by 2020. New non-residential development would likely accommodate up to about 2,400 new jobs by 2020, for a total of 4,021. However, the rate of job production would be based on economic and market conditions, which fluctuate greatly over time. Full buildout under the General Plan Update, based on the holding capacity of the vacant lands in the Town, could accommodate a total employment of about 13,137. This accounts for the full holding capacity of all vacant non-residential land.

2.1 REDESIGNATION of LAND WITHIN THE TOWN

In general, most of the Town would retain its existing land use designations (Figure 2). However, there would be several areas, particularly undeveloped areas, where substantial land use designation changes are contemplated (Figure 3). To summarize, **increased residential density** is contemplated at the following locations:

- ~~*Along Bankhead Road, between Sierra College Blvd. and the Town boundary; and*~~
- ~~*Northwest of the intersection of Barton and Rocklin roads*~~
- *North of King Road on both sides of Barker Road;*
- *On both sides of Bankhead/Barker Road and extending south from King Road to the Town boundary;*
- *Southeast of I-80 from Secret Ravine creek to approximately 500 feet south of Brace Road; and*
- *Northwest of the intersection of Rocklin and Barton Roads.*

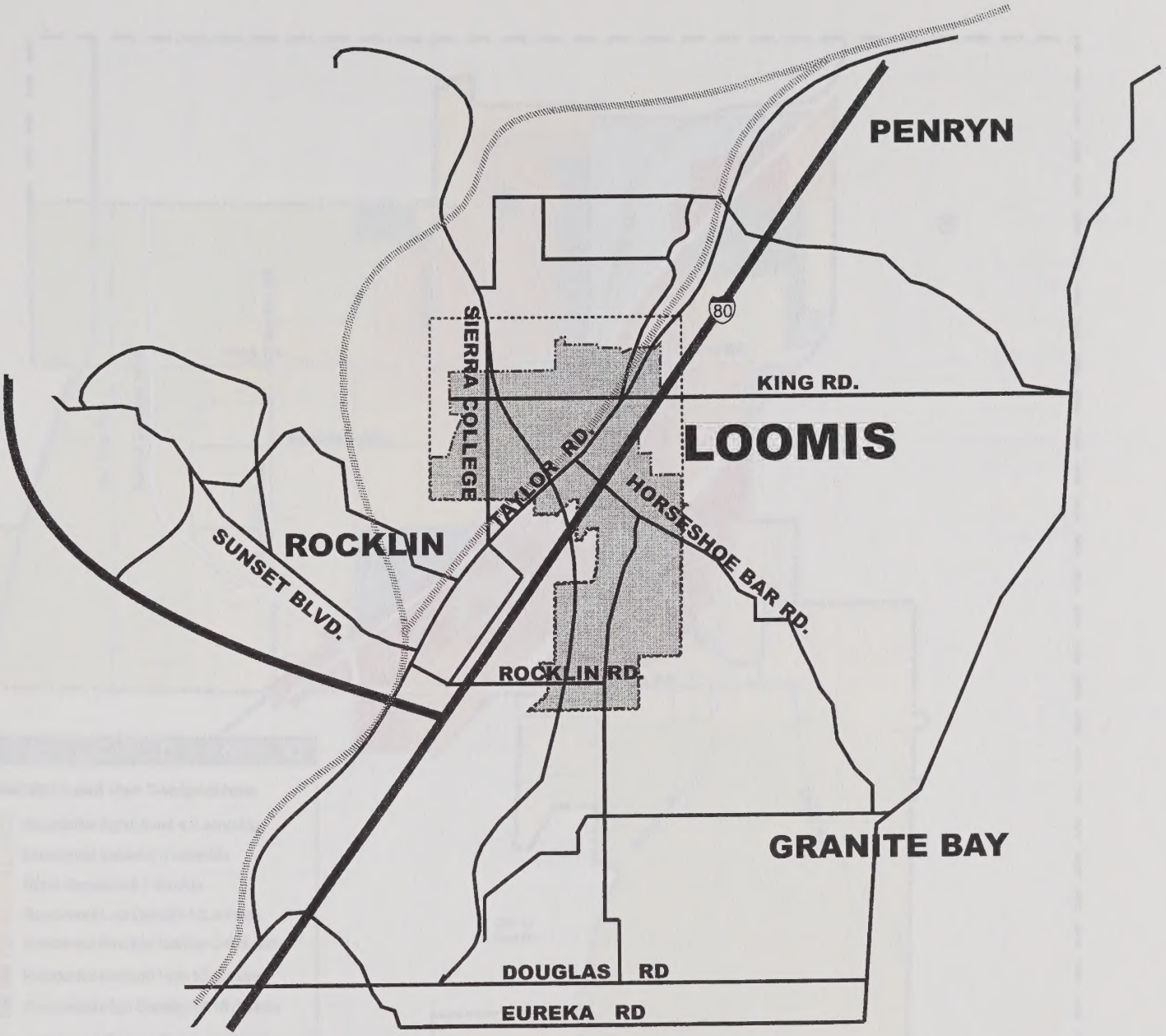
Two additional areas have been changed to increase residential density:

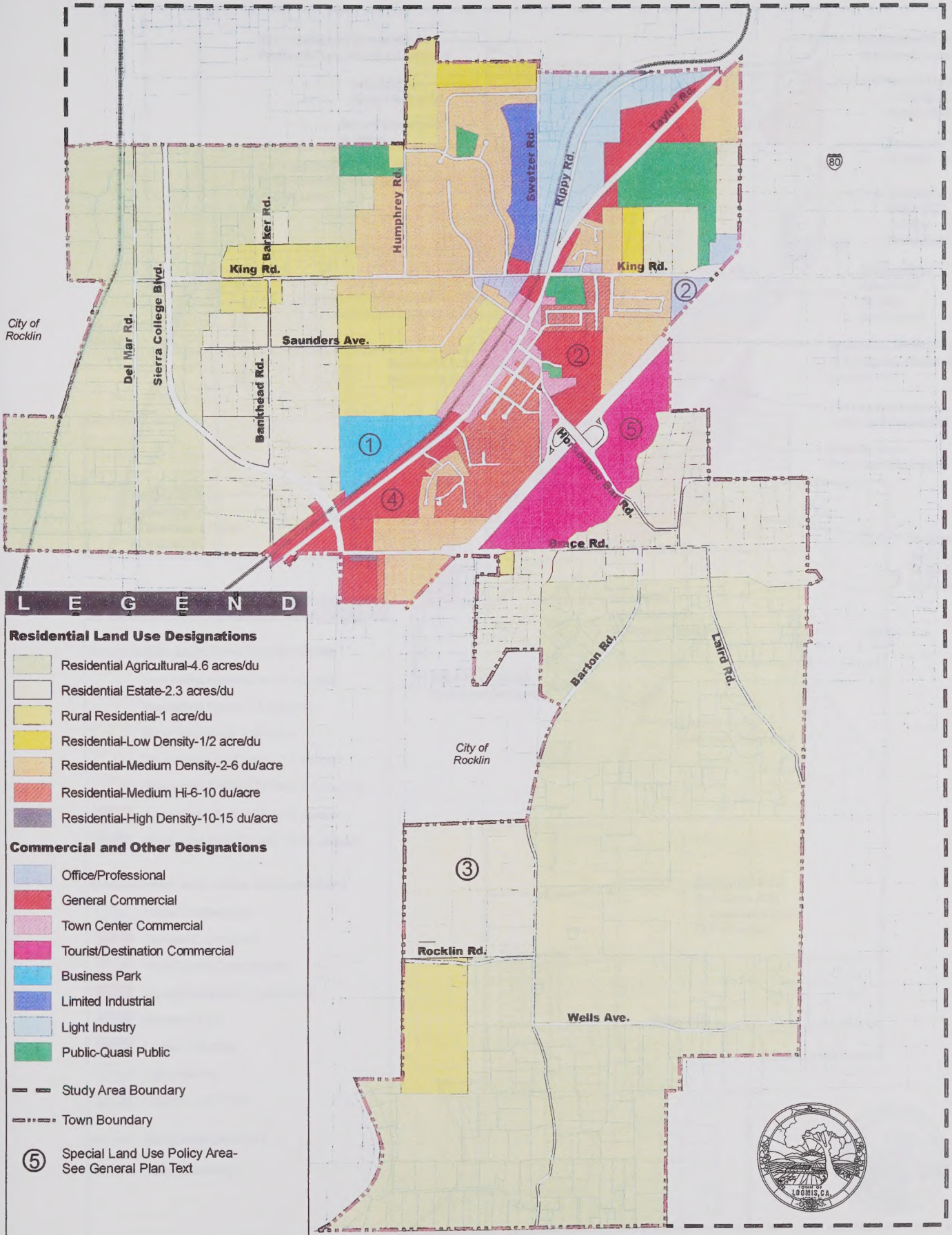
- *A parcel on the south side of Taylor Road at the northeast Town boundary has been changed from Residential Estate (2.3 acres per dwelling unit) to Residential Medium Density (2 to 6 dwelling units per acre); and*
- *A parcel on the west side of Humphrey Road between the north Town boundary and King Road, immediately south of the new elementary school site.*

In addition, the subdivision on Mareta Road will be redesignated to a higher density, to reflect the density of development that already exists at this location.

Changes from **residential** to **commercial** designations are proposed at the following locations:

- *South side of Taylor Road, northeast of Sierra College Blvd.;*
- *Sierra College Blvd., from Taylor Road to Bankhead Road;*
- *NW corner of King Road and I-80 (residential to office);*
- *West of rail line and adjacent to Swetzer Road extension (residential to business park);*

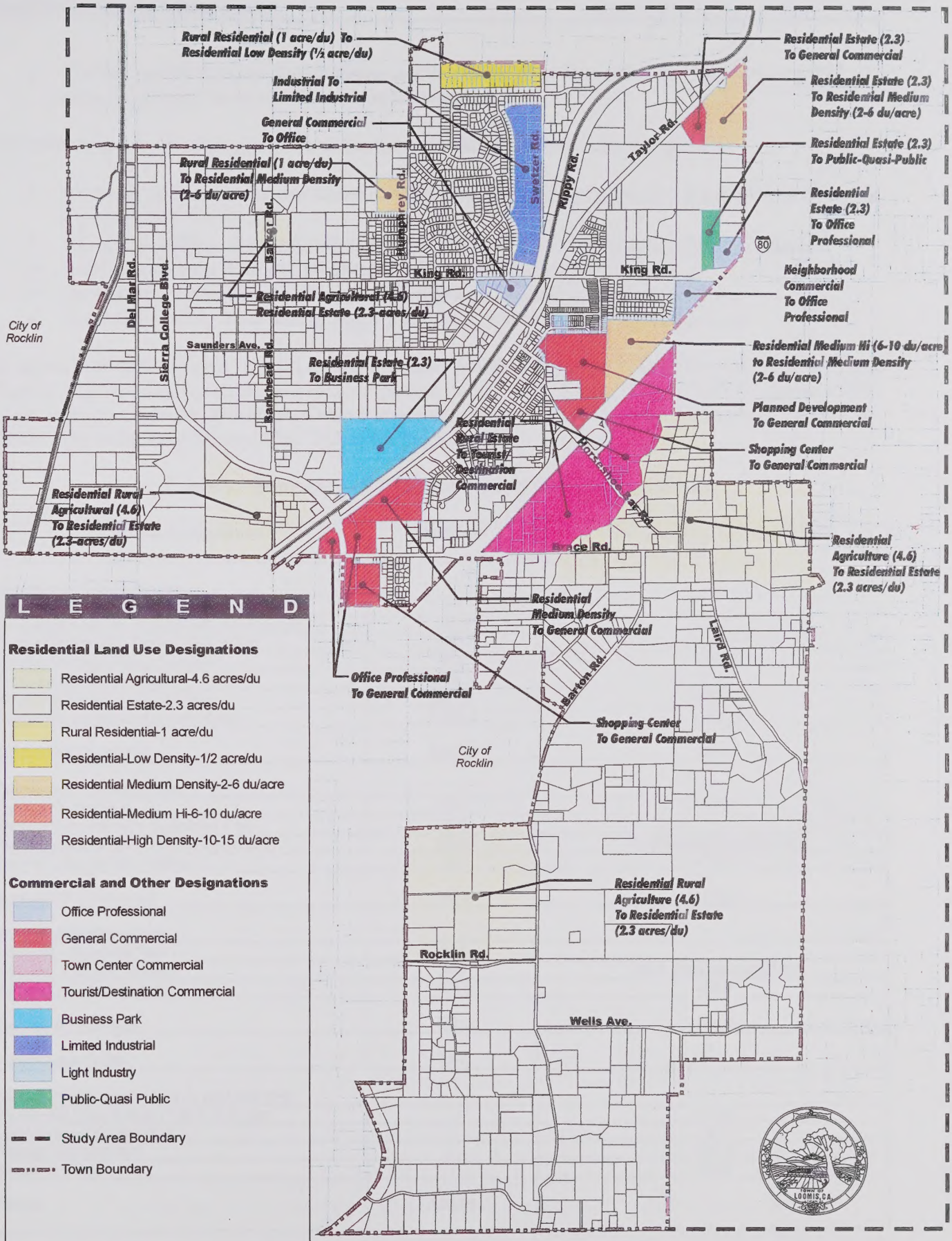

PENRYN
80
SIERRA COLLEGE
KING RD.
LOOMIS
TAYLOR RD.
HORSESHOE BAR RD.
ROCKLIN
SUNSET BLVD.
ROCKLIN RD.
GRANITE BAY
DOUGLAS RD
EUREKA RD
LEGEND
Study Area
City Limit
0 600 1200 2400
Town of Loomis
Figure 1
Location Map



Town of Loomis

Figure 2

Land Use Diagram



Town of Loomis

Figure 3

Areas of Change

- *Various parcels between Secret Ravine and Interstate 80 at Horseshoe Bar Road totaling 117 acres (residential to tourist/destination commercial)*

The following areas would undergo **modifications to existing commercial** designations:

- *SE corner of Brace Road and Sierra College Blvd, and on Horseshoe Bar Road at I-80 (Shopping Center to Gen. Comm.);*
- *NE corner of Brace Road extending north to Taylor (Office Professional to Gen. Comm.);*
- *South side of King Road at I-80 (Neighborhood Comm. To General Comm.);*
- *North side of Raley's center (Planned Development to General Commercial); and*
- *South side of King Road west of Rippy Road (Gen. Comm. To Office Professional)*

In addition to these changes, a new Limited Industrial designation has been included in the General Plan Update, and the property on the east side of Swetzer Road north of King Road would be changed from Light Industry to Limited Industrial. Table 1 summarizes the proposed land uses designations by acreage. Please refer to the draft General Plan Update for more details.

Table 1. Summary of Proposed Land Use Designations

Land Use Designation	Acreage	Change from Existing Plan
Residential Designations:		
Residential High Density (10-15 du/ac)	1.4	-
Residential Medium High Density (6-10 du/ac)	121.2	-26.9
Residential Medium Density (2-6 du/ac)	397	**+65.6**
Residential Low Density (2 du/ac)	32.2	**+19.8**
Rural Residential (1 du/ac)	269.9	-28.6
Residential Estate (1 du/ 2.3 ac)	686.1	**+301.7**
Residential Agricultural (1 du/4.6 ac)	2,295.3	-380.9
Subtotal All Residential:	*3,847.3*	*-49.3*
Commercial Designations:		
General Commercial	98.9	**+52.3**
General Commercial – Downtown Core	38.5	-
General Commercial – Tourist/Destination	113.9	**+113.9 (new designation)**
General Commercial – Office	29.3	**+13.7**
Subtotal All Commercial:	*280.6*	*+179.9*
Industrial Designations:		
Industrial – Business Park	40.8	-
Industrial – Limited Industry	38.9	**+38.9 (new designation)**
Industrial – Light Industry	107.3	-38.9
Subtotal All Industrial:	*187.0*	*+40.8*
Public/Quasi-Public	*67.4*	-
Deleted Designations (not in updated GP):		
Residential Rural Estate (1 du/2.3-4.5 ac)	-	*-113.9*
Neighborhood Commercial	-	*-8.1*
Planned Development	-	*-26.5*
Shopping Center	-	*-22.9*
TOTAL	**4,338.1**	**-**

2.2 BUILDOUT POTENTIAL

The proposed General Plan Update describes buildout potential of the community. Table 2 summarizes development potential upon full buildout of the General Plan Update. Buildout envisions a 77% increase in commercially-designated land (an increase of 122 acres), and a 24% increase in industrially-designated area (41 more acres, all for business park uses). Residentially-designated land would decrease by about 5% (190 acres).

The type and amount of development that actually occurs will depend on market forces. The total industrial, commercial and residential buildout may not occur within the 2020 horizon of the General Plan Update. However, for the purpose of this EIR, impacts are based on full buildout regardless of timing, in order to evaluate all potential impacts associated with development.

Population and Housing. The General Plan Update would have a maximum reasonable holding capacity (buildout) of as many as 3,913 dwelling units, a 74% increase over the existing number of homes (2,253). The population could increase from 6,100 to as much as 10,500~~10,400~~, a 72~~70~~% rise. The economic analysis prepared for this General Plan Update estimates that much of this buildout would likely occur within the 2020 planning horizon for the plan (Taussig & Associates, 1999).

Non-Residential Square Footage and Employment. There are currently about 1,550 job opportunities within the Town (Taussig & Associates, 1999), which equates to an estimated 800,000 square feet of developed commercial and industrial area (Table 2). Under the draft General Plan Update, about 558 acres would be designated for commercial or industrial use. About 66 are already developed for this purpose. The Taussig study estimates that only about 105 of the remaining available non-residential acres (about 21% of the remaining total) would be developed by 2020. Based on anticipated market conditions, this area would support about 2,471 new job opportunities, for a total of 4,021 jobs in the Town. This translates to about new 800,000 square feet of industrial uses, and 480,000 square feet of commercial development during the 20-year horizon of the General Plan Update.

Although this is the estimated non-residential development that is likely to occur by 2020, an EIR must base its potential impacts on full buildout under the General Plan Update, regardless of the timing of that development. At full buildout under the General Plan Update, an estimated 4.1 million square feet of commercial uses and 2.4 million square feet of industrial uses could be accommodated in the 558 acres to be designated for these uses. This land could theoretically support an estimated 13,137 jobs, many more than could be absorbed by residents of Loomis.

Section 15130 of the *State CEQA Guidelines* requires that EIRs address cumulative impacts using either a list of past, present, and reasonably anticipated future projects or a summary of projections contained in a general plan or related planning document. Because the proposed project is a General Plan Update, impacts associated with buildout under the proposed General Plan Update represent the cumulative scenario. In the traffic analysis, the effects of regional development are used to help determine cumulative impacts. Subsequent environmental review would be required for individual development projects contemplated under the General Plan, which would provide additional detail regarding site-specific and cumulative impacts.

Table 2. Maximum Buildout Potential Under the Draft General Plan Update

Land Use Type	Existing Uses (2000)	Additional Development Likely by 2020[c]	Total New Development Potential[b]	Likely Maximum Buildout[b]

Residential (units)				
Single Family	2,133	1,088	1,088	3,221
Multi-Family	120	572	572	692
Total	**2,253**[a]	**1,660**	**1,660**	**3,913**
Non-Residential (square feet)				
Commercial	300,000	480,000	3,800,000	4,100,000
Industrial	500,000	800,000	1,900,000	2,400,000
Total	**800,000**	**1,280,000**	**5,700,000**	**6,500,000**
Employment[d]				
Commercial	690	1,100	8,735	9,425
Industrial	860	1,371	2,852	3,712
Total	**1,550**	**2,471**	**11,587**	**13,137**

[a] *From Department of Finance, 2000. Mobile homes are included under "single-family"*
[b] *Based upon currently vacant and underutilized land in the Town, at a reasonable achievable maximum buildout, which is 80% of the theoretical maximum. This 80% figure accounts for: 1) the need to provide space for infrastructure; 2) many parcels cannot be subdivided; and 3) many property owners will not choose to split their lots to accommodate additional growth. Assumes 25% of all homes in RMH (6-10du/ac) designation would be multi-family. All homes in RH (10-15) and commercial areas assumed to be multi-family. Comm. SF is based on 0.25 FAR; Ind. SF is based on 0.30 FAR. Existing Comm. and Ind. SF based on employment per acre information from Taussig. Buildout based on 182 ac Ind, 377 ac Comm, using assumptions described above*
[c] *Based upon absorption rates estimated in the Taussig study (1999).*
[c] *Existing employment by land use type derived from Taussig study total, disaggregated by existing developed acres and 0.25 FAR (Comm) and 0.30 FAR (Ind)*

2.3 OTHER PHYSICAL CHANGES UNDER THE GENERAL PLAN

The General Plan Update includes several modifications to the Town's existing circulation system in order to accommodate potential growth. For the purpose of this EIR analysis, the following circulation changes would be anticipated under the proposed General Plan Update:

- Widen Sierra College Boulevard to 6 lanes north of I-80 (to Bankhead);
- Reconstruct the I-80/Sierra College Boulevard interchange (City of Rocklin improvement);
- Widen I-80 from a 6-lane to an 8-lane freeway east and west of Horseshoe Bar Road;
- Install bike lanes on Taylor Road from Midas Avenue (in Rocklin) to Sierra College Boulevard, and from King Road to the Loomis Town Limits; and
- Provide passenger rail service to Loomis.

Note that most of these improvements will depend on the cooperation of outside agencies, including the City of Rocklin, Caltrans, AMTRAK, and the Union Pacific Railroad. The following Town-specific roadway modifications are anticipated under the updated Circulation Element, and are intended to respond to future development or specific concerns raised during the General Plan Update preparation process:

- Swetzer Road extension (from King Road to Sierra College Boulevard);
- Boyington Road extension (freeway frontage road from King Road to Horseshoe Bar Road);
- Various functional improvements to Taylor Road in the downtown core;
- Widen Sierra College Boulevard to 4 lanes north of Bankhead;
- Widen Horseshoe Bar Road to 4 lanes, from Boyington Road extension (near I-80) to the southern boundary of the commercial property south of I-80; and
- Widen Rocklin Road to 4 lanes from near Sierra College Boulevard to Barton Road.

With the exception of the last improvement, all are located entirely within Loomis. The widening of Rocklin Road to Sierra College Boulevard would require the cooperation other agencies through which the roadway extends beyond the Loomis town limit.

2.4 PROPOSED PROJECT GOALS and OBJECTIVES

By its nature, the General Plan Update is a document based on goals and objectives. Each element contains a hierarchy of goals, objectives, policies and implementation measures, which are used to guide future development in the community. The statements, particularly the policies and implementation measures, also function as mitigation measures in the context of this EIR. All draft General Plan Update goals and objectives are incorporated by reference, with policies and implementation measures referred to within the impact analysis where appropriate.

3.0 IMPACT ANALYSIS

This section evaluates impacts with respect to the issue areas identified in the Initial Study for this project as needing further consideration. Issues are presented in the same order as described in the Initial Study. Those issues found to be less than significant in the Initial Study are not analyzed in this EIR.

Because the project is a General Plan Update, identified impacts are very general in nature, and in many cases highly subjective. The purpose in identifying potential impact is to propose mitigation that could address known issues in the community that are not already addressed in the draft General Plan Update. Mitigation measures follow one of two types: 1) new or revised policy language, to be added to the plan; or 2) suggested land use designation changes for specific areas, to address potential impacts related to the proximity of various land uses. As a program EIR for an entire community, it is not appropriate to suggest mitigation measures that are too restrictive, or very specific to certain parcels. The Town has other implementation mechanisms, including the zoning ordinance, zoning map, specific plans, and subdivision ordinance, where detailed standards for certain areas may be appropriately applied.

3.1 AESTHETICS (Visual Resources; Light and Glare)

Setting

The Draft Land Use and Community Development Element contains a section describing the visual character of the community. This information is also contained in the Technical Background Report for the General Plan Update.

Visual Character of the Community. The Town of Loomis includes a variety of visually pleasing landscapes. Despite continuing growth, the wooded hills, grasslands, and agricultural areas surrounding the more urbanized core still retain a predominantly open, rural feeling. Loomis is still viewed as a pleasant small town, with commercial areas of pedestrian scale, and an historic architectural heritage.

The Town's visual character is widely appreciated by residents and visitors, and its importance has been highlighted elsewhere in this General Plan Update as a result of community preferences expressed throughout the process of General Plan Update preparation. However, recent growth and development have raised more community design issues than ever before, in part because of the significant growth pressures facing the region, and the type of development projects that have been proposed in the Town.

Even though court decisions on the rights of communities to manage the planning and appearance of development have found that aesthetic regulation is appropriate, the adoption of design standards may be controversial. Aesthetics are inherently subjective.

Sensitive Viewing Corridors. Several major roadways also function as sensitive viewing corridors. Although not particularly scenic, the view from I-80 is the primary impression that travelers receive while passing through the Town, and is designated as a scenic corridor by the County. Other important viewing corridors include Taylor Road, Sierra College Boulevard, and Horseshoe Bar Road. Horseshoe Bar Road and portions of Sierra College Boulevard traverse areas that still maintain a highly rural character. The two rail corridors also may be considered view corridors for passengers passing through on AMTRAK trains.

Light and Glare. Typical sources of light and glare include street lights, lighted parking lots, and lighted signs next to commercial structures. The football stadium at Del Oro High School is another primary source of light while games are in progress. At this time, no existing sources within Loomis are

perceived as a substantial nuisance or safety hazard to nearby residents or motorists. See the Draft Land Use and Community Development Element for more information regarding this topic.

Impacts and Mitigation Measures

Thresholds of Significance. An impact is considered significant if the assessment of aesthetic impacts involves qualitative analysis that is inherently subjective in nature. Different viewers react to viewsheds and aesthetic conditions differently. An impact is considered significant if buildout under the proposed General Plan Update would result in one or more of the following conditions:

- *Proposed development would adversely affect a viewshed from a sensitive public viewing area (roadways and public parks);*
- *New light and glare sources are introduced that substantially alter the nighttime lighting of the planning area;*
- *An existing identified visual resource is adversely altered or obstructed by potential development; or*
- *Development conflicts with visual resource guidelines in adopted Town and County documents*

Key Issues. The following key environmental issues related to visual resources were identified during the preparation of the proposed General Plan. These are the basis for determining potential impacts with respect to future development under the General Plan.

- *The Town of Loomis would like to retain the character of a friendly small town in a rural setting. The growth pressures of the Sacramento region and the ongoing suburbanization in surrounding communities threaten this character.*

- *Identifying ways to preserve open space areas and views is important in retaining the community's rural atmosphere.*

- *The character of recent non-residential development in Loomis has tended toward generic suburban architectural styles. Some residents feel that existing development regulations and design guidelines are not creating and maintaining the desired rural and historical community character.*

- *Some gateway areas to the Town contain land uses, the visual character of which could be improved on currently vacant sites. The Town would like its gateway areas to reflect its distinct, rural character.*

- *The downtown core has a generally consistent design theme, but a number of the buildings have undesirable facade and design elements.*

- *Residents of Loomis would like to accelerate the redevelopment of the downtown.*

- *New land uses will need high quality design to be acceptable to the community.*

Potential Impacts. Based on the key issues identified, the following are considered potentially significant land use impacts by the community:

- Potential urbanization of the community from growth pressures;
- Potential for proposed commercial development to appear generic;

- Degradation of public viewsheds;
- Potential urban design concerns for the downtown area and new commercial development;
- Concerns over gateway treatments at the edge of the community.

Sensitive Viewing Corridors. Buildout under the General Plan Update would accommodate new development, some of which would be near highly sensitive viewing corridors. Development within these areas could therefore result in visual impacts. Commercial development near Horseshoe Bar Road would be very near I-80, a highly traveled corridor from which many people base their impressions of the community. The sign for the Raley's Center is an example of the type of intrusive visual impact that could result along this corridor. Similar impacts could also occur along Sierra College Boulevard, where additional commercial development is slated.

Urban Design. In the absence of appropriate urban design criteria, development that could be accommodated under the Draft Land Use and Community Design Element has the potential to be insensitive to the need for high quality architectural design, and landscaping. It could also result in visually intrusive features, such as inappropriate signs.

Community Character. New development that could be accommodated under the Draft Land Use Element would incrementally alter the small town character of the Town to a more urban environment. However, most of the new development anticipated under the element would be infill of areas within the current Town limits and adjacent to existing developed areas. Rural residential uses, for example, are proposed adjacent to similar development. In such cases, development would not fundamentally alter the small town character of the Town.

Light and Glare. Buildout under the Draft Land Use Element would increase nighttime ambient lighting and daytime glare potential throughout the Town. Increased lighting could come from streetlights, parking lot lights, and signs on and at building establishments. Increased glare could come from building materials, roofing materials and windows reflecting sunlight.

Proposed Policies That Mitigate Potential Impacts. The proposed General Plan Update includes goals and policies intended to conserve and preserve the Town's scenic resources. Additionally, the plan includes goals and policies that prevent incompatible and intrusive uses. The following Draft Land Use and Community Design Element policies address potential impacts related to the key issues described above:

- **Policy LUE (Community Design) 1.** The design of development should respect the key natural and built resources on each site, including ecological systems, vegetative communities, major trees, water courses, land forms, archaeological resources, and historically and architecturally important structures. Proposed project designs should identify and conserve special areas of high ecological sensitivity throughout the Town. Examples of resources to preserve include riparian corridors, oak woodlands, and estuaries.

- **Policy LUE (Community Design) 2.** Each development project should be designed to be consistent with the unique local context of Loomis (addresses form, siting, massing, natural features and surroundings).

- **Policy LUE (Community Design) 3.** Design each project at a human scale consistent with surrounding natural and built features.

- **Policy LUE (Community Design) 4.** Design projects to minimize the need to use automobiles for transportation.

- **Policy LUE (Community Design) 5.** Encourage an active, varied, and concentrated urban life within commercial areas (encourages pedestrian-oriented development and mixed uses).

- **Policy LUE (Community Design) 6.** Respect and preserve natural resources within rural areas (through the harmonious design of buildings, and the emphasis on native vegetation and natural forms in landscaping)

In addition, the General Plan Update includes an implementation measure that calls for *"the preparation of detailed and design guidelines for multi-family residential, commercial, and industrial and other nonresidential development types, to expand on the general policies provided above, and provide developers with clear expressions of community preferences for project design, without mandating single architectural styles."*

Implementation of these policies is anticipated to mitigate impacts relating to visual character of the community. However, no Draft General Plan policies directly address issues related to minimizing light and glare impacts. Several policies within the Draft General Plan Update encourage site planning techniques that would indirectly minimize the potential for light and glare impacts. Such methods include setbacks, building orientation, and separation of incompatible land uses. The Draft Community Design Element also encourages the use of street trees and non-reflective building materials, both of which would reduce glare impacts. In order to ensure that such impacts would be mitigated to a less than significant level, the following policy/implementation measures shall be added to the Draft Land Use and Community Design Element:

- **Additional Policy AES-1.** New lighting (including lighted signage) that is part of residential, commercial, industrial or recreational development shall be oriented away from sensitive uses, and shielded to the extent possible to minimize spillover light and glare. Lighting plans shall be required for all proposed commercial and industrial development prior to issuance of building permits.

- **Additional Policy AES-2.** New lighted park and recreation facilities shall undergo review to determine whether lighting would impact adjacent residential uses. If such impacts would occur, facilities shall remain either unlighted, or lighting shall be limited either by timing or location, as appropriate.

Residual Impacts

Implementation of the proposed policies of the Land Use and Community Design Element, in combination with the additional recommended policies, would be expected to mitigate impacts to view corridors. No significant impacts are anticipated.

3.2 AIR QUALITY

Setting

The following is a general discussion of the regional air quality characteristics of the Loomis planning area, with a background discussion of the climate of the area. Please refer to the Technical Background report for the General Plan Update for additional discussion.

Climate and Meteorology. The Loomis planning area is located in the Sacramento Valley Air Basin, which is characterized by cool winters and hot, dry summers tempered by occasional westerly breezes from the Sacramento/San Joaquin Delta. Weather in summer, spring, and fall is generally a result of the movement and intensity of the semi-permanent high pressure area located in the Pacific Ocean several hundred miles to the west. Winter weather is generally a function of the size and location of low pressure weather systems originating in the north Pacific Ocean.

The nearest climatic data station to the area is the Auburn weather station. The average daily maximum temperature recorded at this station is 72.6 degrees for the period of 1951 to 1980 (NOAA, 1982). The hottest months are July and August, with average maximum daily temperatures of 93.4 and 92.0, respectively. The coolest month is January, with an average daily minimum temperature of 35.9 degrees. The average annual precipitation recorded at the Auburn station for the same period is 34.46 inches. Approximately 88 percent of this precipitation occurs between November and April.

Air pollution problems often develop when calm winds combine with a strong inversion layer (that is, relatively warm air overlying cooler air). Calm conditions are experienced about 9% of the time within the air basin, most often in the wintertime. On the other hand, spring and especially summer are marked by strong sea breezes. High temperatures in the valley often create localized low pressure, which induces the "Delta" breezes through the gap at the Carquinez Strait, a natural cooling phenomenon. These sea breezes tend to disperse air pollutants and may prevent high ozone concentrations during the summer when high temperatures are likely to accelerate ozone formation. Table AQ-1 presents the percentage of occurrence of these airflow patterns.

Table AQ-1. Sacramento Valley Airflow Patterns (%)

Pattern	Winter	Spring	Summer	Fall	Year
Full Sea Breeze	9	29	55	22	29
Calm	18	5	3	12	9
Other	73	66	42	56	62

Source: Town of Loomis, *Sherwood Park Draft EIR*, 1998

The topography of the planning area is such that frequent temperature inversions are not expected. However, meteorological conditions may occur such that the entire Sacramento Valley experiences a temperature inversion, facilitating the accumulation of ozone precursors and ozone formation.

Pollutants of Concern. There are many pollutants present in the atmosphere. However, most are not a significant public health concern in the planning area. In the Sacramento region, carbon monoxide and ozone are of particular concern. Pollutants of concern in the planning area are summarized below.

Particulate Matter (PM_{10}). Particulate matter refers to solid matter and fine droplets (aerosols) suspended in the atmosphere. Ambient air quality standards for particulate matter have historically been based on particulates equal to or less than 10 microns in diameter, called PM_{10}. The USEPA also recently adopted a standard for 2.5 micron particulates ($PM_{2.5}$) in addition to the standard for PM_{10}. Particulates, as opposed

to dust, cannot be adequately filtered by the human respiratory system and is considered inhalable. Inhaled atmospheric particulates can be harmful to humans by directly causing injuries to the respiratory tract and lungs or by the reactive gases which were absorbed by the inhaled particulate. Suspended particulates scatter and absorb sunlight, producing haze and reducing visibility.

Nitrogen Oxide (NO_X). Oxides of nitrogen (NO and NO_2) and reactive organic compounds (ROC) participate in photochemical reactions that produce smog. These chemicals are considered to be precursors of ozone, as their reaction leads to its formation. High temperatures associated with internal combustion engines and industrial operations cause the formation of NO_X by combining atmospheric nitrogen and oxygen.

Ozone. Ozone is the most common component of smog and is the principal pollutant that causes adverse health effects. Ozone is toxic and colorless, and has a pungent odor. In high concentrations, ozone and other photochemical oxidants are directly detrimental to humans by causing respiratory irritation and possible alterations in the functioning of the lungs. Oxidants also inhibit vegetation growth.

Carbon Monoxide. Carbon monoxide is a primary pollutant emitted directly from combustion sources, principally automobile engines, and may cause localized problems associated with congested vehicle traffic.

Ambient Regional Air Quality. Both the U.S. Environmental Protection Agency (EPA) and the California Environmental Protection Agency, Air Resources Board (ARB) have established air quality standards, based on consideration of the health and welfare of the general public. The National Ambient Air Quality standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS) are summarized in Table AQ-2. State standards are more stringent than the Federal standards; therefore, when Federal air pollutant standards are exceeded, the State standards are also exceeded.

Air Quality Attainment Status. The Federal and California Clean Air Acts require identification and classification of each state air basin as attainment, nonattainment, or unclassified based on the NAAQS and CAAQS. An attainment designation for a particular pollutant indicates that available ambient monitoring data have shown that the NAAQS or CAAQS for that pollutant have not been violated (or exceeded). A nonattainment designation for a given pollutant indicates that the standards have been exceeded for that pollutant. An unclassified designation indicates that insufficient ambient monitoring data are available to determine whether or not there have been violations of the NAAQS or CAAQS for the pollutant in question. For regulatory purposes, an unclassified area is generally treated the same as an attainment area.

Table AQ-2. Ambient Air Quality Standards

Pollutant	Averaging Time	State Standard	Federal Standard
Ozone	1-Hour	0.09 ppm	0.12 ppm
Carbon Monoxide (CO)	1-Hour 8-Hour	20 ppm 9.0 ppm	35 ppm 9.0 ppm
Nitrogen Dioxide (NO_2)	1-Hour Annual	0.25 ppm ---	--- 0.053 ppm
Inhalable Particulate Matter (PM_{10})	24-Hour Annual Geometric Mean Annual Arithmetic Mean	50 ug/m3 30 ug/m3 ---	150 ug/m3 --- 50 ug/m3
Sulfur Dioxide (SO_2)	24-Hour	0.04 ppm	0.14 ppm

The planning area is located in the Sacramento Valley Air Basin. Table AQ-3 provides the attainment status for each pollutant in the Sacramento Valley Air Basin. The planning area is in non-attainment for ozone based on both state and federal standards. For PM_{10}, it is in nonattainment for the state standard only. The planning area is in attainment for all other pollutants.

Table AQ-3. Attainment Status Of The Sacramento Valley Air Basin

Pollutant	Federal Status	State Status
Ozone	Nonattainment	Nonattainment
CO	Nonattainment (Sacramento Urbanized Area only)	Unclassified
PM_{10}	Attainment	Nonattainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment

Odors. No single source of odors can be identified in the planning area. However, the Loomis area supports substantial agricultural uses, often in close proximity to residences and other odor-sensitive land uses. Typical odors from such uses include manure from livestock and fertilizer for crop production, which are often perceived as objectionable. Consequently, while odors are not an acute problem within the planning area, they may be considered substantial for some area residents.

Regulatory Framework. Air pollution control is administered on three government levels in the State of California: Federal (EPA), State (ARB) and local (Placer County Air Pollution Control District [APCD]). The Placer County APCD administers air pollution control programs in Placer County in consultation with the EPA and ARB.

Federal. Under federal law, a large region called the Sacramento Air Quality Maintenance Area, which includes Loomis as part of multi-county area (Sacramento, and parts of Placer, Yolo and Solano), has received a severe non-attainment designation for the federal ozone standard. Accordingly, these areas must work together to resolve issues related to ozone emissions.

The Sacramento Area Regional Ozone Attainment Plan (1994) identifies sources controls and trip reduction strategies aimed at achieving the federal ozone standard by 2005. The attainment strategy requires reductions of about 38% of ROG and 40% of NOx from 1990 baseline conditions. Failure to achieve this may result in funding and regulatory sanctions imposed by the federal government.

Amendments to the Federal Clean Air Act required each Air Pollution Control District to submit an Air Quality Management Plan (AQMP) for approval by ARB and the EPA. The goal of the AQMP was to reduce pollutant concentrations below the Federal standards. The Sacramento Area Council of Governments prepared an AQMP in 1982. That AQMP was based upon transportation control measures and land use measures that were not adopted by local planning authorities. On December 1, 1988, the EPA formally disapproved the 1982 AQMP based upon the inability to meet Federal ozone standards. As a result of formal disapproval of local efforts to attain Federal air quality standards, the EPA prepared a Federal Implementation Plan (FIP) for the southern Sacramento Valley Air Basin. The FIP was finalized on February 14, 1995. The purpose of the FIP was to provide control measures to reduce emissions with the goal that the Sacramento Valley Air Basin will attain the Federal ozone standard by 2005. However, on April 11, 1995, President Clinton signed into law HR 889, a Department of Defense appropriations bill that contained provisions rescinding the FIP. As a consequence, the area is subject to the provisions of the Placer County 1992 Air Quality Attainment Plan (AQAP) prepared to comply with the requirements of the California Clean Air Act.

State. Assembly Bill 2595 (known as the California Clean Air Act) took effect on January 1, 1989. The goal of this bill is to attain the CAAQS by the earliest practicable date. The 1992 Air Quality Attainment Plan (AQAP) was prepared by the Placer County APCD to meet the requirements of the California Clean Air Act. The AQAP included stationary source, mobile source and indirect source control measures to reduce emissions to the extent feasible. The control measures identified in the AQAP are intended to reduce emissions to the extent feasible and enable progress towards attainment of the State ozone standard. These measures include:

- *Areawide carpool and vanpools;*
- *Trip reduction ordinances;*
- *Support for bicycle and pedestrian transportation systems;*
- *Use of alternative motor fuels;*
- *Jobs-housing balance in new developments;*
- *Mixed land uses;*
- *Transit service expansion;*
- *Parking space limitations; and*
- *Park-and ride lots on the suburban fringe*

Impacts and Mitigation Measures

Thresholds of Significance. Consistent with the methodology used in the Placer County, a significant impact to air quality would occur if an individual project allowed under the General Plan Update would:

- *Violate any ambient air quality standard;*
- *Contribute substantially to an existing or projected air quality violation; or*
- *Expose sensitive receptors to substantial pollutant concentrations.*

In addition, a significant impact would occur if a project would:

- *Result in population growth that exceeds the growth estimates incorporated into the Placer County Air Pollution Control District's (PCAPCD) Air Quality Attainment Plan (AQAP); or*
- *Cause emission increases that exceed the PCAPCD's major stationary source definition for the new source review (NSR) rule. For ozone precursors, those thresholds currently equal 50 tons per year for NOx and ROG. For CO and PM10, those thresholds are 100 tons per year.*

As a General Plan Update, it is inappropriate to evaluate any particular development project against these thresholds, but rather to compare the overall growth projected against regional growth projections. Because of the magnitude of development, it is presumed that many individual projects would exceed the project-specific thresholds described above, and shown in Table AQ-4 below:

Table AQ-4
Placer County APCD Significance Thresholds

Pollutant	Thresholds (lb/day) For Implementation of Mitigation Measures	Thresholds (lb/day) For General Significance
Reactive Organic Compounds (ROC)	10	82
Oxides of Nitrogen (NO_x)	10	82
Sulfur Oxides (SO_x)	10	136

Particulate Matter < 10 Microns (PM_{10})	82	82
Carbon Monoxide (CO)	550	550

Source: PCAPCD, 1998

Key Issues. The draft General Plan Update does not identify any key issues that directly pertain to the issue of air quality. However, it is a General Plan goal to *"help protect air quality in the Sacramento region."* The Circulation Element also identifies the importance of alternative forms of transportation (bicycles and transit), which would indirectly improve air quality.

Potential Impacts. As shown in Table 2 in Section 2.0, *Project Description*, buildout under the General Plan Update would accommodate up to 3,9133,851 dwelling units, an increase of 1,6931,631 units over current levels. This would accommodate a population of up to 10,50010,400. SACOG projects a population of 12,000 for Loomis in 2020. General Plan buildout would be less than anticipated by regional growth forecasts, which form the basis for regional air quality planning efforts. Therefore, the Draft General Plan Update is considered consistent with forecasted population projections. Air emissions resulting from buildout would therefore be less than anticipated by regional plans.

However, individual projects will undoubtedly result in significant impacts requiring mitigation. Impacts would likely occur during both construction and operation phases, and would be exacerbated by cumulative regional development and the associated increase in automobile traffic that would result. Individual project operation would not only include vehicular emissions, but would also include pollutants from landscape maintenance equipment, residential heating sources (natural gas heaters, fireplaces, and wood stoves), and other activities that generate air pollution. Both construction and operational emissions could contribute to both regional pollutant and localized pollutant concentrations. Impacts would be significant, and although proposed General Plan policy direction would help achieve regional air quality goals, impacts would likely remain significant.

Proposed Policies That Mitigate Potential Impacts. The proposed General Plan Update includes the following policies intended to promote regional air quality:

- **Policy CRE (Natural Resources) 3.** Loomis shall contribute toward the attainment of State and Federal air quality standards in the Sacramento Valley Air Basin.

- **Policy CE (Bicycle Facilities) 1.** The Town shall promote bicycle travel, as appropriate, and shall pursue all available sources of funding for the development and improvement of bicycle facilities.

- **Policy CE (Transit Service) 1.** The Town will promote and support a safe, efficient, and coordinated public transit system that meets residents' needs, reduces congestion, improves the environment, and helps provide a viable non-automotive means of transportation in and through the Town of Loomis.

- **Policy CE (Transit Service) 2.** The Town should work with Placer County Transit and other transit providers to plan and implement public transportation services within the Town that are timely, cost-effective, and responsive to growth patterns and transit demand.

- **Policy CE (Transit Service) 4.** The Town should support efforts to provide demand-responsive service ("paratransit") and other transportation services for those unable to use conventional transit.

Implementation of these policies would serve to reduce overall air quality impacts. To minimize air quality impacts from individual projects in the Town, it is recommended that the following policies be incorporated to ensure that the effects of land development on local and regional air quality are considered and mitigated to the extent feasible:

- **Additional Policy AQ-1.** The Town shall require carbon monoxide modeling for development projects that, in combination with regionally cumulative traffic increases, would result in a total of 800 or more trips at an affected intersection or cause the level of service to drop to D or lower at the intersection.

- **Additional Policy AQ-2.** The Town shall support the Placer County Air Pollution Control District in its efforts to develop a feasible program to meet emission reduction requirements during the environmental review of all development proposals whose emissions exceed applicable significance thresholds.

- **Additional Policy AQ-3.** The Town shall encourage that large residential projects be phased or timed to be coordinated with development that provides primary wage-earner jobs.

- **Additional Policy AQ-4.** If an initial air quality screening indicates that emissions of any pollutant could exceed 10 pounds per day, the Town shall require such development projects to submit an air quality analysis to Placer County APCD for review. Based on the analysis, the Town may require appropriate mitigation measures consistent with the latest version of the AQAP or other regional thresholds of significance adopted for the air basin.

- **Additional Policy AQ-5.** New development shall pay its fair share of the cost to provide alternative transportation systems, including bikeways, pedestrian paths, and bus stop facilities.

- **Additional Policy AQ-6.** The Town shall require that new developments dedicate land sufficient for park-and-ride lots, when the location is appropriate for such facilities.

Residual Impacts

Implementation of these measures as they relate to future development projects in Loomis would be expected to reduce air emissions associated with buildout under the Draft General Plan Update to the extent feasible. However, impacts associated with individual development projects, and their contribution to decreased air quality, would remain significant and unavoidable.

3.3 BIOLOGICAL RESOURCES (Flora and Fauna)

Setting

This section provides a generalized overview of the vegetation and wildlife resources found within the planning area. It includes sections on plant communities and wildlife habitat, special status plant and animal species, and a discussion of wildlife movement corridors.

Plant Communities and Wildlife Habitat. The planning area includes both urban and rural elements in a topographically diverse setting. As such, it supports a variety of natural and artificial plant communities and wildlife habitat, as shown in Table BIO-1:

Table BIO-1. Planning Area Habitat and Sensitivity

Plant Community/Habitat	Sensitivity *
Oak Woodland and Savanna	Sensitive
Riparian and Stream Habitat	Sensitive
Wetlands	Sensitive
Grassland	Common
Chaparral	Common
Urban Landscape	Artificial
Agriculture	Artificial

* See text following for explanation of this notation

These habitat types are grouped by sensitivity, as described below.

Sensitive Natural Communities. For the purpose of this report, a sensitive natural community refers to a habitat which, if substantially degraded or eliminated, would result in significant impacts under CEQA on wildlife, plants, or fish. In the planning area, oak woodland and savanna, riparian and stream habitat, and wetlands are considered sensitive plant communities. These are given special consideration because they provide important ecological functions, including water quality maintenance, stream bank stabilization, the provision of essential habitat for wildlife and fisheries resources. These communities are typically limited in extent compared to their historical distribution due to development activity. Sensitive natural communities are afforded special consideration under federal, state and county laws. A brief description of these communities follows.

Oak Woodland and Savanna. Blue oak woodland, interior live oak woodland, and valley oak savanna are the dominant oak species that occur throughout the planning area.

- *Blue oak woodland* occurs primarily in the portions of the planning area that support shallow or infertile soils. Typically, blue oak woodland includes a mixture of the following plants: blue oak, foothill pine, buck brush, coffee berry and various grassland species.

- *Interior live oak woodland* occurs in lower-lying portions of the planning area, typically along riparian and stream corridors. In some area, interior live oaks form a dense woodland with an understory comprised of annual and perennial grassland species. In other areas, interior live oaks intermix with foothill pine, California buckeye, buck brush, coyote brush, poison oak, coffee berry and grassland species.

- *Valley oak savanna* occurs on deep alluvial soils along streams and riparian corridors in the low-lying portions of the planning area. Several valley oak savanna communities contain

large, heritage-size valley oaks. The understory in a valley oak savanna is usually composed of pasture grassland and annual grassland species.

Oak woodland and savanna provide shelter, breeding, and foraging habitat for many of the wildlife species typically found in grassland or chaparral habitats. Oak acorns are an important food source for wild turkeys, acorn woodpeckers, northern flickers, and mule deer. Oaks also provide nest sites for western gray squirrels and cavity-nesting birds, including acorn woodpeckers, northern flickers, and white-breasted nuthatches.

Riparian and Stream Habitat. Riparian communities develop in areas with high water tables that support seasonal and perennial (permanent) surface water. Riparian communities are common along streams, ponds, and swales in the planning area, most notably Secret Ravine and Antelope Creek. There are many variations of riparian habitat types. Three basic types commonly found in the planning area include mixed riparian woodland, riparian forest, and willow scrub. These are described below.

- *Mixed riparian woodland* is the dominant community in the planning area, and is characterized by intermixed layers of trees, shrubs and herbaceous species. Typical species include Fremont's cottonwood, valley oak, willows, California blackberry, Himalayan blackberry, California rose, blue elderberry, poison oak, sedges, rushes and grasses.

- *Riparian forest* is found in the planning area, particularly along Secret Ravine. Two basic types of riparian forest are found: cottonwood and oak. They are both structurally complex and varied plant communities. Cottonwood riparian forest is characterized by a canopy of Fremont's cottonwood, valley oak, and alders, overtopping a tangle of Himalayan blackberry, poison oak, wild honeysuckle, and arroyo willow. The canopy of oak riparian forest is dominated by mature valley oaks, with scattered black willow. The understory is comprised of poison oak, pipevine, creeping wild rye, and Himalayan blackberry.

- *Willow scrub* is an early-colonizing riparian community dominated by sandbar willow, mugwort, rush and sedge.

Riparian and stream communities provide the highest quality habitat for wildlife in the planning area. The multi-layered riparian community provides escape cover, forage and nesting opportunities for a variety of species. Typical wildlife that are found in riparian and stream habitats include California quail, Bewick's wren, song sparrow, red-shouldered hawk, Cooper's hawk, raccoon, coyote, cottontail, opossum, striped skunk, gray fox, and mule deer.

Wetlands. Wetlands include a variety of habitats that are characterized by a prevalence of hydrophytic (water-loving) vegetation, hydric soils, and wetland hydrology. Natural and artificially-created wetlands exist throughout the low-lying portions of the planning area, typically along streams or in topographic depressions. Wetland types in the planning area include perennial streams, ponds, and seasonal drainage, including vernal pools.

Seasonal freshwater wetlands occur within perennial grasslands as swales and shallow depressions underlain by slowly permeable soils. These wetlands are typically wet from November to June. Vegetation is a mix of wetland and upland species including perennial ryegrass, popcornflower, creek monkeyflower, spikerush, soft chess, tarweed, long-beak filaree, and medusa-head grass. Vernal pools occur on the impermeable Mehrten breccia that exists on ridge tops within the planning area.

Vernal pools, intermittent drainages, and other seasonal wetlands represent unique natural resource habitats within the study area and the state. Vernal pools are considered sensitive habitat areas not only due to their limited occurrence and distribution, but also because they support several unique, and often rare, plant and animal species that are endemic to this kind of habitat. Intermittent drainages and seasonally wet swales within the planning area, while typically low in plant and wildlife species diversity, provide important watershed sources to vernal pools and are also limited in occurrence and distribution.

A comprehensive wetland survey for the planning area has not been conducted. Delineation of wetlands within the planning area has been conducted sporadically, and generally in conjunction with development proposals.

Many wildlife species depend on wetland habitats for foraging, nesting, and cover. Ponds in the planning area provide important resting and foraging habitat for migrating birds, such as Canada goose, mallard, and cinnamon teal. Wetlands also provide habitat for ring-necked duck, American coot, great blue heron, great egret, and black phoebe.

Common Natural Communities. Common natural communities are native landscapes that have not been altered by farming or other land disturbance. Grassland and chaparral are considered common natural communities because of their abundance in the planning area and throughout California.

Grasslands. Grassland is an herbaceous community characterized by annual and perennial grasses and forbs. Grasslands occur in pastures, along fence rows, and more extensively in undisturbed rural areas. Three types of grassland associations occur in the planning area: annual grassland, native perennial grassland, and pasture grassland.

- *Annual grasslands* are dominated by annual grasses intermixed with annual forbs and perennial forbs, including wild oat, ripgut brome, soft chess, fescue, clover, summer mustard, wild radish, yellow-star-thistle, and elegant clarkia.

- *Native perennial grasslands* are dominated by native grasses such as purple needlegrass, woodland ryegrass, and California melic grass. Perennial grasslands also typically support a larger number of native forb species than do annual grasslands. These include harvest brodiaea, soap plant, tarplant, lupine, and mariposa lily. These perennial grasslands typically occur on north-facing, mesic slopes near oak woodlands and savannas.

- *Pasture grasslands* are typically dominated by perennial sod-forming grasses, such as harding grass, orchard grass, Kentucky fescue, and common velvet grass. Pasture grasslands are maintained through artificial irrigation systems.

Grasslands provide nesting and foraging habitat for several wildlife species, including red-tailed hawk, American pipit, western meadowlark, lesser goldfinch, American kestrel, California ground squirrel, and California vole.

Chaparral. Chaparral communities are characterized by evergreen, hard-leaved shrubs adapted to dry, infertile soils. The herbaceous layer is usually sparse because chaparral shrubs produce growth-inhibiting oils that prevent the establishment of herbaceous species. Two types of chaparral are found within the planning area: buck brush and chamise chaparral. Buck brush chaparral is dominated by buck brush with scattered chamise, toyon, coffee berry, poison oak, and interior live oak. Chamise chaparral occurs on recently burned hillsides and is usually

dominated by chamise. Chaparral provides high-quality cover and roosting habitat for western rattlesnake, California thrasher, wrentit, California quail, gray fox and mule deer.

Artificial Plant Communities. Artificial plant communities are human-created landscapes that provide some wildlife habitat value. Urban landscape and agricultural areas are the primary artificial communities located in the planning area.

Urban Landscape. Urban landscape exists around commercial, residential and park sites within the planning area. Urban landscape is composed of non-native plants, shrubs and trees. These areas provide low-quality habitat for a variety of native and non-native wildlife, including northern mockingbird, European starling, house sparrow, house finch, acorn woodpecker, mourning dove, Brewer's blackbird, gopher snake, and western toad.

Agricultural Land. Orchards and irrigated crops are the primary types of agricultural activity within the planning area. Agriculture is dispersed throughout the planning area, forming a mosaic between grasslands, oak woodland, and riparian habitats.

Areas along fence rows and drainage ditches that support some remnant native vegetation or weedy species provide limited habitat for common wildlife species, which include: western meadowlark, red-tailed hawk, American kestrel, and red-winged blackbird. Migrant birds also use agricultural areas for winter foraging and roosting. Typical migrant species that occur in the planning area include rough-legged hawk, American pipit, Canada goose, and house finch.

Special-Status Plant and Wildlife Species. Special-status species are plants and animals legally protected, either under federal, state, or local law, or through documentation put forth by the scientific community. Table BIO-2 illustrates the most commonly-recognized definitions of what qualifies as "special status."

Table BIO-2. Definition of Special-Status Species

Plant Species	Animal Species
♦ Plants listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (50 CFR 17.12);	♦ Animals listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (50 CFR 17.11 and various notices);
♦ Plants that are Category 1 candidates for possible future listing as threatened or endangered under the federal Endangered Species Act (55 CFR 6184, 2-21-90);	♦ Animals that are Category 1 candidates for possible future listing as threatened or endangered under the federal Endangered Species Act (54 CFR 554);
♦ Plants that meet the definition of rare or endangered under CEQA (*CEQA Guidelines*, Section 15380);	♦ Animals that meet the definition of rare or endangered under CEQA (*CEQA Guidelines*, Section 15380);
♦ Plants considered by the CNPS to be "rare, threatened or endangered" in California (Lists 1B and 2 in Skinner and Pavlik, 1994);	♦ Animals listed or proposed for listing by the State as threatened or endangered under the California Endangered Species Act (14 CCR 670.5);
♦ Plants considered by the CNPS about which more information is needed and plants of limited distribution (Lists 3 and 4 in Skinner and Pavlik, 1994);	♦ Animal species of special concern to the CDFG (Remsen, 1978 for birds; Williams, 1986 for mammals)
♦ Plants listed or proposed for listing by the State as threatened or endangered under the California Endangered Species Act (14 CCR 670.5);	♦ Animal species that are fully-protected in California (CFG Code, Section 3511, 4700 and 5050)

♦ Plants listed under the California Native Plant Protection Act (CFG Code 1900 et. Seq.); ♦ Plants considered sensitive by other federal agencies, state and local agencies or jurisdictions; ♦ Plants considered sensitive or unique by the scientific community or occurring at the limits of its natural range (*CEQA Guidelines*, Appendix G).	

Special-status species include those that are listed as rare, threatened, or endangered by the CDFG or the U.S. Fish and Wildlife Service; candidates for either state or federal listing; species designated as "fully protected" or "species of special concern" by the CDFG. The CDFG utilizes the California Natural Diversity Database (NDDB) to document occurrences of special status species. The NDDB includes information on plant species prepared by the California Native Plant Society (CNPS). Table BIO-2 shows the special status species in the area based on the literature and database review. They are described in more detail in Technical Background Report prepared for this EIR.

Table BIO-3. Special Status Species Potentially-Occurring in the Town of Loomis

Common Name	Scientific Name	Status	Habitat
PLANTS			
Big-scale balsamroot	*Balsamorhiza macrolepis* var *macrolepis*	1B	GR
Dwarf downingia	*Downingia pusilla*	2	VP,WET
Legenere	*Legenere limosa*	1B	VP
Hispid bird's-beak	*Cordylanthus mollis ssp hispidus*	1B	akaline soils
Boggs lake hedge-hyssop	*Gratiola heterosepala*	1B	VP,WET
INVERTEBRATES			
Vernal pool fairy shrimp	*Branchinecta lynchi*	FT	VP
Conservancy fairy shrimp	*Branchinecta conservatio*	FE	VP
Vernal pool tadpole shrimp	*Lepidurus packardi*	FE	VP
California linderiella	*Linderiella occidentalis*	SA	VP
Valley Elderberry longhorn beetle	*Desmocercus californicus dimorphus*	FT	WDL
AMPHIBIANS and REPTILES			
Western spadefoot	*Scaphiopus hammondii*	CSC	SAV,GR
Foothill yellow-legged frog	*Rana boylei*	CSC	WET
California red-legged frog	*Rana aurora draytoni*	FT, CSC	Stream pools
Northwestern pond turtle	*Clemmys marmorata marmorata*	CSC	Stream pools
BIRDS			
Great blue heron (rookery)	*Ardea herodias*	SA	WDL
Cooper's hawk (nesting)	*Accipiter cooperii*	CSC	WDL,GR
Sharp-shinned hawk (nesting)	*Accipiter striatus*	CSC	WDL
Tricolored blackbird (nesting)	*Agelaius tricolor*	CSC	WET
Golden eagle (nest & winter)	*Aquila chrysaetos*	CSC	GR, CH, WDL
Long-eared owl (nesting)	*Asio otus*	CSC	WDL
Short-eared owl (nesting)	*Asio flammeus*	CSC	GR
Burrowing owl	*Athene cunicularia*	CSC	GR
Swainson's hawk (nesting)	*Buteo swainsoni*	ST	WDL, GR
Ferruginous hawk (wintering)	*Buteo regalis*	CSC	GR
Northern harrier (nesting)	*Circus cyaneus*	CSC	GR
White-tailed kite (nesting)	*Elanus caeruleus*	SA	WDL, GR
Merlin (wintering)	*Falco columbarius*	CSC	WDL, GR
Prairie falcon (nesting)	*Falco mexicanus*	CSC	GR
Loggerhead shrike	*Lanius ludovicianus*	CSC	GR
Yellow-breasted chat (nesting)	*Icteria virens*	CSC	WDL
MAMMALS			
Pallid bat	*Antrozous pallida*	CSC	GR, WDL
Townsend's big-eared bat	*Corynorhinus townsendii townsendii*	CSC	GR, WDL
American badger	*Taxidea taxus*	SA	GR

KEY:

STATUS CODES:

FE	*Federally listed Endangered*	*SE*	*State-listed Endangered*
FT	*Federally listed Threatened*	*ST*	*State-listed Threatened*
PFE	*Proposed Federal Endangered*	*SR*	*State-listed Rare (plants only)*
FC	*Federal Candidate*	*SCE*	*State Endangered Candidate*
SCT	*State Threatened Candidate*	*1B*	*CNPS: Rare, Threatened, Endangered in CA*
CSC	*California Species of Special Concern*	*2*	*CNPS: Rare, Threatened, Endangered*
SA	*Special Animal per CDFG, March 1998*		*in CA but more common elsewhere*

HABITAT CODES:

GR	*Grassland*	*SAV*	*Savanna*
CH	*Chaparral*	*WDL*	*Oak/Riparian Woodland*
WET	*Wetland*	*VP*	*Vernal Pool*

Source: CDFG, June 18, 1998; CDFG March 1998, CDFG April 1998.

Special-Status Plants. Five special status plants have been reported in the general vicinity of the Town, but none have been reported in the planning area. However, based on known habitat requirements and distributions, the special-status plants shown in Table BIO-2 have the potential to occur in the planning area. Several of these plants are associated with vernal pools that occur in old volcanic mud flows, which are generally located southeast of the planning area. However, they could also occur in vernal pools within the planning area.

Special-Status Wildlife. The Department of Fish and Game's Natural Diversity Data Base (CDFG) listed one special-status wildlife species, the valley elderberry longhorn beetle, as known to occur in the planning area. However, based on known habitat requirements and distributions, any of the special-status species listed in Table BIO-2 have the potential to occur in the planning area. Many site-specific wildlife surveys have been conducted in the planning area and Table BIO-3 lists the wildlife observed during several surveys. Special-status wildlife species have been marked with an asterisk.

Table BIO-4. Wildlife Species Observed in the Planning Area

Common Name	Scientific Name	Source
Birds		
Cooper's hawk *	*Accipiter cooperii*	2,4
Red-winged blackbird	*Agelaius phoeniceus*	2
Mallard	*Anas platyrhynchos*	4
Scrub jay	*Aphelocoma coerulescens*	1,2,4
Red-tailed hawk	*Buteo jamaicensis*	1
Red-shouldered hawk	*Buteo lineatus*	1
California quail	*Callipepla californica*	1, 4
American goldfinch	*Carduelis tristis*	4
Purple finch	*Carpodacus purpureus*	4
Turkey vulture	*Cathartes aura*	4
Wrentit	*Chamaea fasciata*	1
Killdeer	*Charadrius vociferus*	1
Northern flicker	*Colaptes auratus*	1, 2
Western wood-pewee	*Contopus sordidulus*	1
American crow	*Corvus brachyrhynchos*	1
Raven	*Corvus corax*	2
Warbler sp.	*Dendroica* sp.	4
Black-shouldered kite *	*Elanus caeruleus*	1, 2, 4
Brewer's blackbird	*Euphagus cyanacephalus*	1
Acorn woodpecker	*Melanerpes formicivorus*	2, 4
Northern mockingbird	*Mimus polyglottos*	4
Ash-throated flycatcher	*Myiarchus cinerascens*	4
Plain titmouse	*Parus inornatus*	2, 4
Savannah sparrow	*Passerculus sandwichensis*	4
Ring-necked pheasant	*Phasianus colchicus*	4
Grosbeak	*Pheucticus* sp.	4
Nuttall's woodpecker	*Picoides nuttallii*	1, 4
Bushtit	*Psaltriparus minimus*	1
Black phoebe	*Sayornis nigrians*	1, 4
Western bluebird	*Sialia mexicana*	4
White-breasted nuthatch	*Sitta carolinensis*	4
Western meadowlark	*Sturnella neglecta*	1
European starling	*Sturnis vulgaris*	1
Barn owl	*Tyto alba*	1
Solitary vireo	*Vireo solitarius*	4
Mourning dove	*Zenaida macroura*	1, 2, 4
Golden-crowned sparrow	*Zonotrichia atricapilla*	2

Table BIO-4. Wildlife Species Observed in the Planning Area

Common Name	Scientific Name	Source
White-crowned sparrow	*Zonotrichia leucophrys*	2
Mammals		
Coyote	*Canis latrans*	1
Black-tailed jackrabbit	*Lepus californicus*	1
Black-tailed deer	*Odocoileus hemionous*	1
Raccoon	*Procyon lotor*	2
Skunk	*Mephitus mephitus*	5
Botta's pocket gopher	*Thomomys bottae*	1, 2
Reptiles and Amphibians		
Western pond turtle *	*Clemmys marmorata*	4
Western skink	*Eumeces skiltonianus*	2
Western fence lizard	*Sceloprus occidentalis*	2, 4
Alligator lizard	*Gerrhonotus sp.*	4
Pacific chorus frog	*Pseudacris (Hyla) regilla*	2, 4
Bullfrog	*Rana catesbeiana*	4
Common garter snake	*Thamnophis sirtalis*	4
Side-blotched lizard	*Uta stansburiana*	4
Fish		
Sacramento sucker	*Catostomus occidentalis*	3
Brown bullhead	*Ictalurus nebulosus*	3
Green sunfish	*Lepomis cyanellus*	3
Bluegill	*Lepomis macrochirus*	3
Largemouth bass	*Micropterus salmoides*	3
Sacramento squawfish	*Ptychocheilus grandis*	3

Key:

1 *Shadowbrook Recirculated Draft EIR*, ESA, 1997
2 *K-8 Elementary School Site Draft EIR*, Quad, 1994
3 Jones & Stokes Secret Ravine survey, March 1988
4 Laird Road survey, Jones & Stokes, 1993.
5 Town Staff, 1998

Aquatic Habitat. Streams in the planning area provide important habitat for several fish species. Portions of Secret Ravine and Antelope Creek provide the highest quality habitat because these waterways support moderate flows, clear water, rocky stream beds, and overhanging riparian vegetation.

Secret Ravine is a perennial stream used by fall-run Chinook salmon and steelhead trout for spawning and rearing of juveniles (Town of Loomis, *Turtle Island Draft EIR*, 1996). The chinook salmon spawn from November to January, and most fry immediately migrate downstream to the Sacramento River and through the Delta to the ocean. Steelhead trout spawn from March to April and may remain up to two years in Secret Ravine before migrating. Sampling of Secret Ravine in 1988 identified Sacramento squawfish, bluegill, green sunfish, brown bullhead, Sacramento sucker, and largemouth bass (Jones & Stokes, 1988). No fall-run Chinook salmon were observed at that time, although the Department of Fish and Game had been stocking Secret Ravine since 1983 to increase fish production.

Antelope Creek is a perennial stream that provides habitat for several game and nongame species, including golden shiner, bluegill, green sunfish, and mosquitofish. In addition, Both Secret Ravine and Antelope Creek provide habitat for bullfrog and Pacific chorus frog, as well as potential habitat for northwestern pond turtle and California red-legged frog.

Regulatory Framework.

Special-Status Species. The federal Endangered Species Act of 1973 (50 CFR 17) provides legal protection and requires definition of critical habitat and development of recovery plans for plant and animal species in danger of extinction. California has a parallel mandate embodied in the California Endangered Species Act of 1984 and the California Native Plant Protection Act of 1977. These laws regulate the listing of plant and animal species as endangered, threatened, or in the case of plants, rare.

The federal Endangered Species Act requires federal agencies to make a finding on all federal actions, including the approval by an agency of a public or private action, as to the potential to jeopardize the continued existence of any listed species potentially impacted by the action. Section 9 of the federal Endangered Species Act prohibits the "take" of any member of an endangered species. "Take" is defined by the act as, "...to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." USFWS has further defined the terms "harass" and "harm." Harass is defined as "*...an intentional or negligent act or omission that creates the likelihood of injury to a listed species by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering.*" Harm is further defined to include "*...significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering.*" Section 10(a) of the federal Endangered Species Act permits the incidental "take" of an endangered species if the take is "incidental to, and not the purpose of, the carrying out of an otherwise lawful activity."

Species listed by the State are not necessarily protected by the federal protection statutes. Under the State laws, the CDFG is empowered to review projects for their potential impacts to listed species and their habitats.

In addition to formal endangered and threatened listings, the State of California also lists *Species of Special Concern* based on limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. These species are not afforded the same legal protection as listed species, but may be added to official lists in the future.

Federal Candidate species include taxa for which the USFWS currently has compiled substantial information on biological vulnerability and potential threats in order to support the appropriateness of proposing to list the taxa as endangered or threatened species. The State of California also maintains lists for Candidate-Endangered Species (SCE) and Candidate-Threatened Species (SCT).

Wetland Regulation. Wetlands are defined by the federal government as "*...those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.*" This definition was developed for the purpose of identifying wetlands subject to regulation under Section 404 of the Clean Water Act, which is the principal law regulating the discharge of dredged and/or fill material into waters of the US. This definition differs from the functional definition of wetlands used by the U.S. Fish and Wildlife Service, which defines wetlands for inventory (not regulatory) purposes as "*...lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is covered by shallow water.*"

The U.S. Fish and Wildlife Service definition includes both vegetated and non-vegetated wetlands, recognizing that some areas may lack vegetation (e.g., mud flats, rocky shores, gravel bars, sand beaches), but still provide functional wetland habitat elements for fish and wildlife. Some FWS-defined wetlands are not necessarily subject to regulation under Section 404, which formerly defines wetlands based on the presence of hydric soils, hydrology, and hydrophytic vegetation. It is important to note, however, that the California Department of Fish and Game has adopted the FWS definition as a matter of policy (Rollins

1987). As such, wetland impacts are generally more expansive under the California Environmental Quality Act (CEQA) than under the National Environmental Policy Act (NEPA) and Clean Water Act. Under CEQA, impacts can also be determined significant for areas that do not meet Federal wetland criteria if they are considered locally rare or unique. Wetland communities are considered Rare by the California Department of Fish and Game.

The U.S. Army Corps of Engineers has regulatory authority for certain fill activities within "waters of the United States." These waters include perennial and intermittent streams, wetlands, vernal pools, natural lakes and ponds. All these wetland habitat types can be subject to regulatory jurisdiction of the U.S. Army Corps of Engineers (ACOE) under the provisions of Section 404 of the Clean Water Act.

Impacts and Mitigation Measures

Significance Thresholds. The significance threshold is established for direct, indirect, and cumulative impacts associated with this project by assessing the current status of each sensitive biotic resource at global, statewide, county/regional, and locally. Federal, state, and local regulations and policies, as well as the intent of CEQA, are used in identifying regulated resources while scientific data on each biotic resource are used to establish rarity and sensitivity levels.

Guidance for determining significance thresholds is based on the *State CEQA Guidelines,* and local/regional general plans and ordinances. Using these guidelines, the proposed project would have a significant impact on associated biological resources if it would:

- *Conflict with adopted environmental plans and goals in the community where it is located;*
- *Substantially affect a rare or endangered species;*
- *Interfere substantially with the movement of any resident or migratory fish or wildlife species;*
- *Substantially diminish habitat for fish, wildlife or plants;*
- *Involve the use, production or disposal of materials which pose a hazard to animal or plant populations in the area affected; or*
- *Involve the alteration or conversion of biological resources identified as significant within the county or region. These resources include:*
  -Locally important species; and
  -Locally important communities.

Specifically, the following activities would constitute a significant impact on biological resources:

- *Loss of individuals of or habitat for special-status species.*
- *Loss of sensitive vegetation/habitat types, including wetlands.*
- *Loss of heritage oak trees (trees greater than 6 inches in diameter at breast height).*
- *Loss of raptor nests.*
- *Introduction of invasive exotic species.*
- *Disruption of wildlife migration or movement.*

Key Issues. The draft General Plan Conservation of Resources Element identifies the following key issue that pertains to the preservation of biological resources:

- *Loomis needs to strengthen Town requirements for protecting stream corridors and riparian habitat for wildlife and plant species, groundwater supplies, visual qualities, and recreational opportunities.*

Potential Impacts. Future development within the Town would occur near streams, creeks, and within other areas that would adversely impact biological resources. Specifically, the following mechanisms for causing impacts are anticipated to possibly occur when individual developments are implemented:

- Removing oak trees
- Filling wetlands
- Creating barriers to wildlife movement or migration.
- Destroying or disturbing active raptor bird nests.

Development that could occur within the current Town limits under the Draft General Plan would primarily consist of infill development in already urbanized areas. Such development would not be expected to adversely affect important biological habitats or plant species. However, some development would entail reuse of lightly-used rural lands, some of which supports potential habitat. Development near streams, including Antelope Creek and Secret Ravine, also has the potential of adversely affecting riparian habitat. The most notable example of development near sensitive riparian areas includes the commercial development site at I-80 and Horseshoe Bar Road, which would be located near Secret Ravine. The EIR for that project has proposed mitigation measures, including setbacks, which would provide some degree of mitigation. Similarly, individual development projects at other locations in the Town would be required to provide mitigation for impacts to the biological environment.

Development, particularly on the urban fringe, could result in the removal of heritage oaks, or grassland habitat that supports sensitive species. Such habitat provides foraging and nesting opportunities for several sensitive species, including raptors. Any of the sensitive species listed in Tables BIO-2 and BIO-3 could be affected, and the fact that several previously-prepared environmental documents suggests their presence at various locations throughout the community, significant impacts are likely to occur at other locations.

Development can increase impervious surface and result in greater runoff that can carry sediment and degrade stream water quality. These effects can negatively affect vegetation within stream corridors, as well as downstream locations into which the streams empty.

Secret Ravine is a perennial stream used by fall-run Chinook salmon and steelhead trout for spawning and rearing of juveniles (Town of Loomis, *Turtle Island Draft EIR*, 1996). Both Secret Ravine and Antelope Creek provide habitat for bullfrog and Pacific chorus frog, as well as potential habitat for northwestern pond turtle and California red-legged frog. If water quality is degraded, impacts to the continued use of this stream by these species would be significant.

The loss of vernal pools, particularly in areas overlain by mehrten deposits, could result in significant impacts to several kinds of fairy shrimp. Although no vernal pools are known to occur in the Town, there are areas overlain by Mehrten deposits in the western portion of the community, west of Sierra College Boulevard, on the hilltop that separates Loomis from Rocklin. Mehrten deposits are also found in the southernmost part of the Town, in the vicinity of Ridge Park Drive. Neither area contains land slated for future development. Impacts to vernal pools are likely to be less than significant.

Oak woodland is prevalent throughout much of the planning area, and new development has the potential to result in the removal of individual trees, which could affect the quality of habitat. This is a potentially significant impact.

Loss of riparian areas, oak woodland, and other habitat could adversely affect many wildlife species that depend on such habitat, including mammals, reptiles and birds, as listed in Table BIO-2.

Proposed Policies That Mitigate Potential Impacts. The proposed General Plan Update includes the following policies intended to protect biological resources:

- **Policy CR (Natural Resources) 1.** The streams of Loomis are among the most significant and valuable of the Town's natural resources. Development adjacent to streams shall be designed, constructed, and maintained to avoid adverse impacts on riparian vegetation, stream bank stability, and stream water quality to the maximum extent feasible. These policies shall apply to all watercourses shown as blue lines on the most recent United States Geological Survey (USGS) 7.5-minute topographic quadrangle maps applicable to the Town.

  a. Proposed structures and grading shall be set back the greater of: ~~50~~100 feet from the outermost extent of riparian vegetation as defined in the Zoning Ordinance; ~~100 feet from the centerline of the stream~~; or outside of the 100-year flood plain. Development shall be setback from ephemeral or intermittent streams a minimum of 50 feet, to the extent of riparian vegetation, or to the 100-year flood plain, whichever is greatest. ~~A~~ Lesser setbacks may be approved where site-specific studies of biology and hydrology, prepared by qualified professionals approved by the Town, demonstrate that a lesser setback will provide equal protection for stream resources and will not increase the risk of flooding.

  b. Proposed development shall include surface water drainage facilities that are designed, constructed, and maintained to ensure that the increased runoff caused by development does not contribute to the erosion of stream banks, or introduce pollutants into watercourses.

  c. Land uses and development within the setback areas required by this policy shall be limited to: the grazing of livestock at half or less of the animal densities allowed by the Zoning Ordinance; open wire fencing to confine livestock; bridges; public utilities and infrastructure; and other uses allowed by the applicable zoning district as permitted or conditional uses, with conditional use permit approval.

  d. The following activities are prohibited within stream corridor setbacks: filling or dumping; the disposal of agricultural wastes; channelization or dams; the use of pesticides that may be carried into stream waters; grading, or the removal of natural vegetation within the required setback area, except with grading permit approval.

- **Policy CR-(Natural Resources)-2.** Individual heritage trees and significant stands of heritage trees shall be preserved. Healthy native trees shall be removed or significantly trimmed only when necessary because of safety concerns, conflicts with utility lines and other infrastructure, the need for thinning to maintain a healthy stand of trees, or where there is no feasible alternative to removal. Proposed development shall be designed, constructed, and maintained to preserve individual heritage trees and significant stands of heritage trees, and provide for the protection of root zones and the continuing health of the trees. When trees are removed, they shall be replaced in sufficient numbers to maintain the volume of the

Town's overall tree canopy over a 20-year period. Tree removal within stream corridors is also subject to the above policy on stream corridor protection.

- **Policy CR-(Natural Resources)-4.** Loomis will work cooperatively with state, regional, and local agencies in protecting natural resources.

In addition, the Conservation of Resources Element includes the following implementation measure:

- The Town shall prepare and adopt a Tree Protection Ordinance which expands the current Heritage Tree Ordinance to identify specific species of trees to be protected and preserved, criteria and permit requirements for tree removal, requirements for the replacement of removed trees and maintenance of the Town's overall tree canopy, and requirements for the protection of retained trees during development project construction, and their long-term maintenance.

Implementation of these policies would serve to reduce overall impacts to biological resources. To minimize impacts from individual projects in the Town, it is recommended that the following policies be incorporated to ensure that the effects of development on biological resources are mitigated to the extent feasible:

- **Additional Policy BIO-1.** The Town shall encourage the use of natural stormwater drainage systems to preserve and enhance existing natural features. The Town shall promote flood control efforts that maintain natural conditions within riparian areas.

- **Additional Policy BIO-2.** The Town shall require that industrial and commercial uses that store or use hazardous materials provide a buffer zone sufficient to protect public safety, including the safety of nearby wildlife.

- **Additional Policy BIO-3.** The Town shall require that development projects proposing to encroach into a creek corridor or creek/wetland setback to do one or more of the following, in descending order of desirability:
  a. Avoid the disturbance of riparian vegetation;
  b. Replace riparian vegetation (on-site, in-kind);
  c. Restore another section of creek (in-kind); and/or
  d. Pay a mitigation fee for restoration elsewhere (e.g., wetland mitigation banking program)

- **Additional Policy BIO-4.** Where creek or wetland protection is required or proposed, the Town shall require public and private development to:
  a. Preserve creek corridors and setbacks through easements or dedications. Parcel lines or easements shall be located to optimize resource protection;
  b. Designate such easement or dedication areas as open space.
  c. Protect creek corridors and their habitat value by 1) providing adequate setbacks; 2) maintaining creek corridors in their natural state; 3) employing restoration techniques, where necessary and appropriate; 4) using riparian vegetation within creek corridors; 5) prohibit the planting of invasive, non-native plants within creek setbacks; and 6) avoiding tree removal within creek corridors.
  d. Use techniques that ensure development will not cause or worsen natural hazards near creeks, and will include erosion and sediment control practices such as 1) turbidity screens (to minimize erosion and siltation); and 2) temporary vegetation sufficient to stabilize disturbed areas.

- **Additional Policy BIO-5.** The Town shall discourage grading activities during the rainy season, unless adequately mitigated, to avoid sedimentation of creeks and damage to riparian areas.

- **Additional Policy BIO-6.** The Town shall require that newly-created parcels include adequate space outside of wetland and riparian setback areas to ensure that property owners will not place improvements within areas that require protection.

- **Additional Policy BIO-7.** The Town shall support the concept of "no net loss" of wetlands though any combination of the following, in decreasing order of desirability: 1) avoidance of riparian habitat; 2) minimization of impacts to the resource; and 3) compensation, in the form of mitigation banking to protect wetland habitat or individual species that rely on this habitat. The Town shall cooperate with regulating agencies to ensure that concerns are adequately addressed.

- **Additional Policy BIO-8.** Prior to approval of discretionary development permits involving parcels near significant ecological resource areas, the Town shall require, as part of the environmental review process, a biotic resources evaluation by a qualified biologist. The biologist shall follow accepted protocols for surveys (if needed) and subsequent procedures that may be necessary to complete the evaluation. "Significant Ecological Areas" shall include, but not be limited to:

    a. Wetland areas;
    b. Stream environment zones;
    c. Suitable habitat for rare, threatened or endangered species, and species of concern;
    d. Large areas of non-fragmented habitat, including oak woodlands and riparian habitat;
    e. Potential wildlife movement corridors; and
    f. Important spawning areas for anadramous fish.

- **Additional Policy BIO-9.** Prior to approval of discretionary development permits involving parcels near significant ecological resource areas, project applicants shall demonstrate that upland grading activities will not contribute to the direct cumulative degradation of stream quality.

Residual Impacts

Implementation of these policies, in combination with Town ordinances, and state and federal regulatory protection, would reduce impacts to the extent possible. However, individual projects, as they are developed, could result in significant unavoidable impacts, which would be identified through the regulatory processes set forth, in part through the General Plan Update. Increased cumulative development throughout the region would also contribute to significant unavoidable impacts to biological resources.

3.4 CULTURAL RESOURCES

Setting

Archaeological Resources. The planning area is located in the region that was occupied by the Nisenan or Southern Maidu at the time of Euro-American contact. Nisenan territory included the drainages of the Yuba, Bear, Feather and American Rivers. Their villages were commonly located on ridges or large flats along major streams. However, the discovery of gold in the mid-18th century caused the near extinction of the native population and culture. The gold rush also provided a new historical context for the area, and is now itself considered an event that has produced significant cultural resources.

The planning area was included in an overall resources survey conducted by Placer County in the early 1990s. A comprehensive search conducted at the North Central Information Center of the California Archaeological Inventory at CSU Sacramento showed 634 recorded prehistoric and historic sites countywide. Of this number, 52 were recorded in the general vicinity of the planning area., including the area upstream toward Penryn and Newcastle. The sites included 6 prehistoric villages with surface artifacts and bedrock mortars. Most other sites also included bedrock mortars. Historical sites in the area generally are associated with 19th century mining operations, and include ditches, foundations and mining equipment.

Very few sites have been found in Loomis. A survey of an undeveloped 322-acre site north of Wells Avenue found no sites in spite of the presence of many rock outcroppings (Town of Loomis, Sherwood Park Draft EIR, 1998). With the exception of the commercial development site near I-80/Horseshoe Bar Road, where archaeological sites were found near Secret Ravine, no sites were found for surveys associated with other recent projects, including the Town of Loomis Specific Plan (1988), and a proposed elementary school near No Name Lane (1994). The 1986 survey for the 105-acre Loomis Oaks project (southeast of the Rocklin Road/Barton Road intersection) found a single prehistoric milling station, but noted several nearby sites just outside the project area. Other recent development proposals, such as the one for the 22-acre Heritage Park Estates project, dismissed potential impacts to cultural resources in the Initial Study for the EIR after a previous survey had been conducted.

Nevertheless, less than 5% of the Town has been surveyed, and the conditions exist for discovering unknown cultural resources. According to the Placer County Department of Museums, the probability of prehistoric sites being found on any given parcel is moderate to high (Placer County, *Horseshoe Bar/Penryn Community Plan EIR*, 1993). This would be particularly true for sensitive areas, such as near creeks or terraces above creeks.

Paleontology. The geology of the planning area includes Cenozoic-era sedimentary rock formations, which potentially contain fossils. However, the expected abundance and kinds of fossils varies widely from place to place, according to the underlying geologic unit. The foothills of the Sierra Nevada are of particular interest to paleontologists because the area was once at or near the shoreline of an ancient sea that occupied the Central Valley. Sea level fluctuations caused alternating deposition of marine and non-marine sediments, creating conditions favorable for preserving fossils.

All but the youngest geologic formations have been tilted upward by the rise of the Sierra Nevada. Gradual long-term erosion has removed parts of these formations, exposing rocks that may contain fossils. In some places, such rocks may be overlaid by a thin layer of recently deposited sediment or soil.

The portions of Loomis that have the greatest potential to contain fossils are those underlain by Mehrten conglomerate, which are found in the extreme western and southern portions of the Town. Low-lying areas south of Horseshoe Bar Road are also potentially sensitive (Placer County, Horseshoe Bar/Penryn

Draft Community Plan EIR, 1993). However, no fossil resources have been identified in recent environmental documentation for projects in the community.

Impacts and Mitigation Measures

Significance Thresholds. The California Environmental Quality Act (CEQA) specifies criteria for evaluating the importance of cultural resources such as archaeological sites. An "important" archaeological resource is one that:

A) Is associated with an event or person of:
   - Recognized significance in California or American history, or
   - Recognized scientific importance in prehistory.

B) Can provide information which is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable or archaeological research questions;

C) Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind;

D) Is at least 100 years old and possesses substantial stratigraphic integrity; or

E) Involves important research questions that historical research has shown can be answered only with archaeological methods.

Impacts are considered significant if future develop has the potential to disturb the integrity of an important archaeological or paleontological site, or disturb the integrity of historic resources.

Key Issues. The draft General Plan Conservation of Resources Element identifies the following key issue that pertains to the preservation of cultural resources:

- *A number of historical structures, primarily in the downtown area, have potential for adaptive reuse and enhancing the Town's rural, small town image.*

Potential Impacts. Development that could occur within the current Town limits under the Draft General Plan Update would primarily consist of infill development in already urbanized areas. Such development would not be expected to adversely affect important archaeological or fossil resources. However, retrofitting of historic structures in the downtown area has the potential to adversely affect the historic integrity of these structures.

In addition, development in rural areas has the potential to uncover or disturb currently unrecorded archaeological or historic resources.

Proposed Policies That Mitigate Potential Impacts. The proposed General Plan Update includes the following policies intended to protect biological resources:

- **Policy CR (Cultural Resources)-1.** When feasible, Loomis shall encourage the reuse and revitalization of historic buildings on public property. Whenever possible, flexibility in development standards allowed by the Historic Building Code shall be offered to developers working with historic properties.

- **Policy CR (Cultural Resources)-2.** The demolition of buildings deemed historically or aesthetically valuable shall be prohibited in cases where alternatives for reuse are found to be feasible.

- **Policy CR (Cultural Resources)-3.** Loomis shall support the expansion and development of cultural facilities and programs, as a draw for visitors and residents to the downtown core.

These measures would generally be expected to avoid impacts to cultural resources. However, it is recommended that the following policies be added to provide further protection for archaeological sites.:

- **Additional Policy CR-1.** When feasible, and on public property, Loomis shall prohibit recreational activities that could damage or destroy archaeological sites in areas where archaeological sites have been identified.

- **Additional Policy CR-2.** As part of the environmental review process, the Town shall review all development proposals for their potential to disturb cultural resources. In areas where cultural resources are known to occur, give special consideration to development of facilities that enhance the operation, enjoyment, and maintenance of these areas.

Residual Impacts

Implementation of these policies, along with suggested additional policies, would reduce potential general impacts to cultural resources to a less than significant level. In addition, further regulatory protection provided by the state and federal government would provide additional protection.

3.5 GEOLOGIC PROCESSES

Setting

Existing geologic conditions in the Loomis Planning Area are discussed in the Draft Public Health and Safety Element and technical Background Report. Potential geologic hazards present in portions of the planning area include ground shaking, liquefaction, landsliding, and soil expansiveness. Figure 4 shows a generalized geology map for the area.

The following summarizes the geologic setting of the area:

Regional Faulting. The major fault systems in the region tend to occur along the interface between differing geologic materials. The nearest major fault system near Loomis is the Foothills Fault System, which traverses Amador, El Dorado, and Placer counties in a path more than 350 kilometers long and several kilometers wide. Two segments of this system are relatively close to Loomis: the segment of the Bear Mountain Fault Zone (Spenceville Fault) between Folsom and Auburn, and the Melones Fault Zone, about 15 miles to the east.

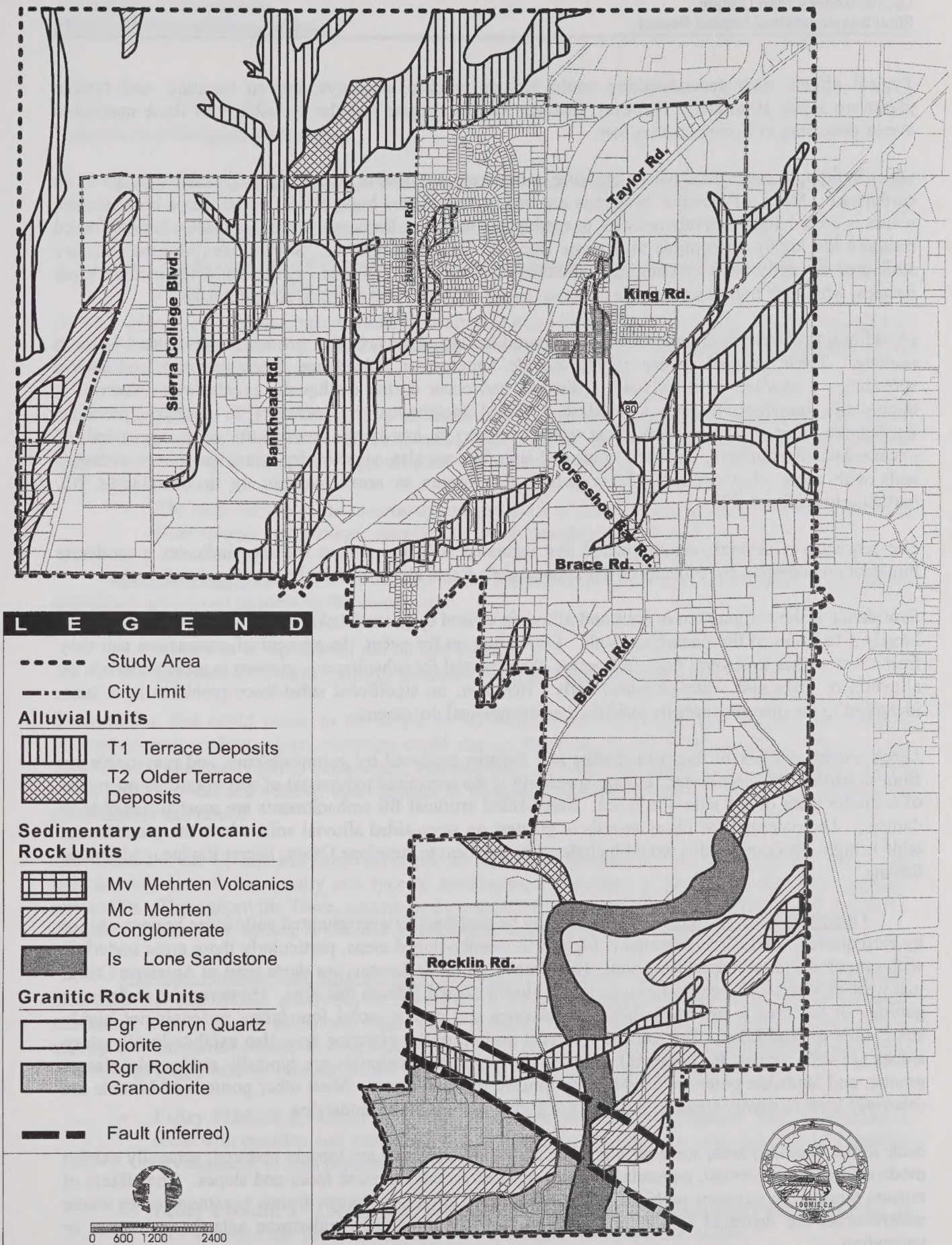
No active faults are known to exist in Placer County, and no Alquist-Priolo Special Studies Zones are designated in the County. The nearest known active fault that has been mapped is the Dunnigan Hills Fault, well to the northwest of the Town across the Central Valley.

Within the planning area, an inactive inferred fault was mapped across the area's southern boundary (Livingston, 1974). The potential for seismic events originating from this fault is considered low.

Seismic Hazards. The underlying geologic foundation of the region is a relatively unbroken granitic batholith that extends along the Sierra Nevada. During seismic events, this material tends to react as a uniform block, which has the effect of reducing ground movement, acceleration, and the likelihood of ground rupture. Consequently, the California Division of Mines and Geology (CDMG) classifies the region as a low severity earthquake area. Typical seismic hazards include surface rupture, groundshaking, and various types of ground failure. The potential for these hazards to exist in the planning area is described below.

Surface rupture during earthquakes is typically limited to those areas immediately adjacent to the fault on which the event is occurring. Because the planning area contains no active faults, the likelihood of surface rupture in the area is considered low.

The most serious direct earthquake hazard is the damage or collapse of buildings caused by ***groundshaking***, which, in addition to property damage, can cause injury or death. Groundshaking is the primary seismic concern for Loomis. Portions of Loomis are located on alluvial deposits, which can increase the potential for groundshaking damage. As earthquake waves pass from more dense rock to less dense alluvial material, they tend to reduce velocity, but increase in amplitude. Ground motion lasts longer on loose, water-saturated materials than on solid rock. The potential for groundshaking may be considered highest on the alluvial deposits along the creeks and ravines in the northern portion of Loomis.



Town of Loomis

Figure 4
Geology Map

Typical effects such groundshaking could include cracked chimneys, moved furniture, and broken glassware inside structures. However, historic records suggest that the probability of these maximum events occurring in Loomis is very low.

Older buildings constructed before building codes were in effect are most likely to suffer damage in an earthquake. Many of Loomis' buildings are one or two stories high, and of wood frame construction, which is considered relatively resistant to earthquake damage. However, buildings made of unreinforced masonry are highly susceptible to damage from severe groundshaking. Several unreinforced masonry structures currently exist in Loomis, particularly in the downtown area. Some buildings include brick facades, which are highly susceptible to damage (and falling) in the event of an earthquake.

In addition to structural damage caused by groundshaking, there are other ground effects caused by such shaking. These ***ground failure*** effects include liquefaction, subsidence, lurch cracking, and lateral spreading. *Liquefaction* in soils and sediments can occur during earthquake events, when material is temporarily transformed from a solid to a liquid (gelatinous) by increases in interpore pressure. Earthquake-induced liquefaction most often occurs in low-lying areas with soils composed of unconsolidated, saturated, clay-free sands and silts, but can also occur in dry, granular soils or saturated soils with some clay content. Liquefaction also occurs in areas overlain by unconsolidated fill, particularly artificial fill.

The presence of several unconsolidated and saturated soils throughout the area indicates a moderate liquefaction potential, particularly on the alluvial soils found along the low-lying ravines and creeks.

Subsidence is the compaction of soils and alluvium caused by groundshaking. It occurs irregularly and is largely a function of the underlying soils. Depending on the event, the amount of compaction can vary from a few inches to several feet. In Loomis, the potential for subsidence is greatest in areas underlain by alluvium or other soft water-saturated soils. However, no significant subsidence problems have been identified in the planning area by published environmental documents.

Lurch cracking refers to fractures, cracks and fissures produced by groundshaking, and may occur far from an earthquake's epicenter. Lateral spreading is the horizontal movement of soil toward an open face of a stream bank or the side of a levee. Steep-sided artificial fill embankments are most susceptible to damage. The potential for these hazards is greatest on steep-sided alluvial soils where the groundwater table is high. In Loomis, this would include areas adjacent to Antelope Creek, Secret Ravine, and Sucker Ravine.

Other Geologic Hazards. *Landslides* may be triggered by oversaturated soils (after heavy rains) or by earthquakes. Landslide potential is highest in steeply-sloped areas, particularly those areas underlain with saturated and unconsolidated soil. The steepest slopes in Loomis are those west of Antelope Creek, just west of Sierra College Boulevard. Some slopes exceed 30% in this area. However, the underlying geology of the area is generally mehrten volcanics and granite, solid foundation materials not highly susceptible to landslides. The southeasternmost portion of the planning area also exhibits locally steep slopes (15-25% slopes are common). Again, the underlying materials are typically stable volcanics or granite, and landslide potential would be minimized to some extent. Most other portions of Loomis are relatively level or gently sloping, and thus not highly susceptible to landslides.

Soils in the planning area, some of which are on steep slopes and are loosely textured, generally exhibit moderate *erosion* potential, particularly when exposed on embankment faces and slopes. The effects of erosion range from nuisance problems, such as increased siltation in storm drains, to extreme cases where watercourses are downcut and gullies develop that can eventually undermine adjacent structures or vegetation.

Impacts and Mitigation Measures

Significance Thresholds. A project will normally result in significant geological impacts if it would:

- *Expose people or structures to major geologic hazards;*
- *Cause a substantial or potentially substantial adverse change in any of the physical conditions within the area affected by the project.*

As a General Plan Update, impacts must be evaluated somewhat differently. The General Plan Update provides policy direction that tends to mitigate potential impacts of individual developments. This analysis will be conducted in that context.

Key Issues. The following key environmental issues related geologic hazards were identified during the preparation of the proposed General Plan. These are the basis for determining potential impacts with respect to future development under the General Plan.

- *The rural nature of the community and presence of older structures increases the Town's risk from seismic and geologic seismic and urban-interface fire hazards.*

Potential Impacts. Based on the key issues identified, the following are considered potentially significant geological impacts by the community:

- Alteration of topography during construction
- Exposure of lives or property associated with new development to geologic hazards

Construction that could occur in the future in accordance with the Land Use Element may require excavation and grading. Such activities could change the topographic relief in some portions of the Town, and could also result in compaction, displacement, and other disruption of the soil. Development could result in localized wind or water erosion of soils, or contribute to adverse impacts from additional permeability and runoff.

The General Plan Update has been developed to recognize the geologic conditions in the Town. Its policies will control the density and type of development permitted in areas with identified geologic constraints. Throughout the Town, seismic and geologic hazards occur. These constraints will need to be considered when development is planned in potentially hazardous areas.

Proposed Policies That Mitigate Potential Impacts. Various General Plan Update policies would determine the appropriate intensities of development for different parts of the planning area to avoid substantial topographical alteration. Individual projects will be reviewed for specific impacts and appropriate mitigation measures. The Public Health and Safety Element includes a number of policies to minimize geologic hazards relating to new development in the Town. These include:

- **Policy PH&SE 2.** Engineering analysis of new development proposals shall be required in areas with possible soil instability, flooding, earthquake faults, or other hazards, and prohibit development in high danger areas.

- **Policy PH&SE 3.** Loomis shall comply with Placer County's Emergency Response Plan, as well as revise the Town Emergency Plan to address Town-specific issues.

- **Policy PH&SE 6.** Loomis shall cooperate with Federal, State, and local authorities to ensure that loss due to seismic activity and other natural and man-made disasters is minimized.

- **Policy PH&SE 7.** Loomis shall encourage compliance with State requirements for unreinforced masonry buildings and seismic safety.

In addition, the following General Plan Update implementation measures would further mitigate potential impacts:

- **Implementation Measure PH&SE 2.** The Town shall identify and inventory its unreinforced masonry buildings.

- **Implementation Measure PH&SE 3.** The Town should implement a program of retrofitting existing unreinforced masonry buildings.

- **Implementation Measure PH&SE 5.** The highest and most current professional standards for seismic design shall be used in the design of Critical, Sensitive and High-Occupancy Facilities, so that the seismic design of the facilities will not become substandard within a few years.

- **Implementation Measure PH&SE 6.** The Town engineer shall establish a central repository for the collection and compilation of geologic and soils engineering information related to faults and fault zone studies, groundwater levels, soils characteristics, susceptibility to landslides and liquefaction, and other data as appropriate.

- **Implementation Measure PH&SE 10.** The Town should monitor bridges, over and underpasses, and walls in the public right-of-way to ensure safety.

- **Implementation Measure PH&SE 11.** The Town shall require, prior to approval of a project located in an area subject to potential seismic hazards (liquefaction, fault rupture, landslides, etc.), a geotechnical report defining and delineating any seismic hazard.

- **Implementation Measure PH&SE 12.** The Town shall develop standards and restrictions such as the limits on the types of allowable development, development intensity/density standards, and subdivision design policies for sites subject to seismically-induced landslides or liquefaction, or potential fault rupture areas for identified active and potentially active faults.

- **Implementation Measure PH&SE 21.** Emergency preparedness exercises should be conducted at least once every two years.

No further policy-related mitigation measures are required.

Residual Impacts

Implementation of these Public Health and Safety Element policies and implementation measures is anticipated to fully mitigate impacts relating to geologic hazards. No additional mitigation is required. Individual projects, as they are developed, will be subject to geotechnical review, where appropriate, and will implement site-specific mitigation.

3.6 HAZARDOUS MATERIALS

Setting

The Draft Safety Element provides information on potential risks to public safety from hazardous materials used or transported through the Loomis area. This information is summarized below.

Household Products. By far the most common hazardous materials are those found or used in the home. Waste oil is a common hazardous material that is often improperly disposed of and can contaminate surface water through runoff. Other household hazardous wastes (used paint, pesticides, cleaning products and other chemicals) are common and often improperly stored in garages and homes throughout the community. Because of their prevalence and proximity to residents, household products constitute the most pervasive health hazard facing residents of the community.

Industrial Products. More than 60,000 chemicals are produced in the United States. Over 11,000 of these chemicals are used for commercial purposes. Within the Town of Loomis, over 5,000 manufacturing and service industries use or store hazardous materials, including pesticides, acids, caustics, solvents, plastics and heavy metals.

Under Chapter 6.95, section 25503 of the California Health and Safety Code, Business Plans are required from California businesses that handle a hazardous material in quantities equal to or greater than the following:

- *55 gallons of a liquid;*
- *500 pounds of a solid;*
- *200 cubic feet of a compressed gas; or*
- *Extremely hazardous substances above Federal threshold reporting quantities*

As part of the Business Plan, emergency response plans and procedures must be developed and training sessions must be provided to employees. Businesses are periodically inspected by local administering agencies to ensure that handling, storage, and waste disposal practices conform with appropriate laws and regulations.

Many businesses commonly use or store hazardous materials, including gasoline stations, automotive repair facilities, dry cleaners, agricultural facilities, and miscellaneous commercial and industrial facilities. Industrial use of hazardous materials is centered in the downtown area, particularly along Taylor Road. Specific information regarding the location of businesses and types and quantities of hazardous substances used or stored can be obtained through the Fire Department or Environmental Health Department.

Mine Tailings. Historic mining operations often left dredge tailings, or discarded rock and material, either near the mine site in the case of dredge or hardrock mining, or washed downstream as a result of upstream hydraulic mining. Dredge mining was common in the 19th century along the creeks in the Loomis area, and dredge tailings can still be found. Hydraulic operations have scarred hillsides in Loomis, one notable example being on the proposed Loomis Hills Estates development site, where a 60-foot high, 1,000-foot long cliff provides evidence of such operations (Town of Loomis, *Sherwood Park Draft EIR*, 1998).

Mine tailings can be contaminated with mercury or cyanide, both of which are used in the process of gold refining. However, most gold was not refined in the immediate Loomis area and the potential for such contamination in dredge materials is considered low.

Agricultural Pesticide Use. Loomis includes many agricultural operations. Orchards in particular are often sprayed with various pesticides, which can contaminate the soils. Denuded vegetation can suggest evidence for soil contamination. Potential contaminants can include DDT, lead and arsenic. In such areas, it is prudent to conduct soil testing (and conducting soil clean-up steps, if necessary) before allowing more intensive development. In the downtown area, some structures were formerly used for agricultural purposes.

Asbestos. Asbestos is a highly crumbly material often found in older buildings, typically used as insulation in walls or ceilings. It was formerly popular as an insulating material because it had the desirable characteristic of being fire resistant. However, it can pose a health risk when very small particles become airborne. These dust-like particles can be easily inhaled, where their microscopically sharp structures can puncture tiny air sacs in the lungs, resulting in long-term health problems.

Loomis contains many older structures with the potential to contain asbestos. Pre-1979 construction often included asbestos and it should be assumed that the demolition of older structures in the Town may present this hazard. Proper asbestos abatement and disposal procedures should be undertaken whenever the demolition of older structures is considered.

Hazardous Materials Transport. The Union Pacific Railroad and Interstate 80 are major transcontinental transportation routes that pass through Loomis. Trains and trucks commonly carry a variety of hazardous materials, including gasoline and various crude oil derivatives, and other chemicals known to cause human health problems. When properly contained, these materials present no hazard to the community. But in the event of an accident or derailment, such materials may be released, either in liquid or gas form. In the case of some chemicals (such as chlorine), highly toxic fumes may be carried far by air or water from the accident site.

Although standard accident and hazardous materials recovery procedures are enforced by the state and followed by private transportation companies, the Town of Loomis is at relatively high risk because of its location along interstate rail and highway corridors. In addition, the relatively low overhead clearance for the freeway bridges in the Town pose an additional risk for trucks transporting hazardous materials, which is a primary reason why some trucks divert from the freeway and travel through the Town on Taylor Road.

Hazardous Waste Management. Counties are required by state law to prepare hazardous waste management plans. Placer County's Plan addresses the treatment, storage and disposal of such materials. The primary goal of the plan is to protect public health by promoting the safe use and disposal of hazardous waste. To accomplish this, the plan provides for the reduction of hazardous waste through source reduction, recycling, and on-site handling and treatment methods. Public education and community involvement are key features for achieving this goal.

Impacts and Mitigation Measures

Significance Thresholds. A significant impact with respect to hazardous materials would occur when development would use or reuse the site of an activity that has historically stored or used hazardous materials.

Key Issues. Although there are no identified key issues related to hazardous materials in the Draft General Plan, it is a goal of the Public Health and Safety Element to "*reduce risks associated with natural and man-made hazards through compliance with State and Federal safety programs.*" This is the

basis for determining potential impacts with respect to future development under the General Plan Update.

Potential Impacts. Based on the identified goals of the General Plan Update, the following are considered potentially significant impacts by the community:

- The exposure of lives or property to hazardous materials from various land uses, including industry that uses hazardous materials;
- Exposure to lives or property to risks associated with the transport of such materials.

Development that would be accommodated under the Draft General Plan would have the potential to increase risks associated with hazardous material use and transport in two ways. First, buildout of the community as allowed under the Land Use and Community Design Element would increase the Townwide population by about 70%. Thus, there would be an overall increase in potential exposure to hazards associated with existing facilities. Second, although the General Plan Update is not anticipated to accommodate new large industrial facilities, the general increase in commercial and light industrial activity in the community would incrementally increase the use of potentially hazardous materials. Therefore, the overall potential for accidental spills would be expected to increase to some degree.

As individual development are proposed, the Fire Prevention Inspector responsible for the project will review lists of hazardous materials provided by the applicant as part of the project description to determine consistency with the State Health and Safety Code. A site visit may be necessary to determine compatibility to surrounding areas. Whether the hazardous material impacts of a project are significant shall be decided on a case-by-case basis and depends on:

- *Individual or cumulative physical hazard of material or materials.*
- *Amounts of materials onsite, either in use or storage.*
- *Proximity of hazardous materials to populated areas and compatibility of materials with neighboring facilities.*
- *Federal, State, and local laws, and ordinances, governing storage and use of hazardous materials.*
- *Potential for spill or release.*
- *Proximity of hazardous materials to receiving waters or other significant environmental resource.*

In addition, the storage, handling and disposal of potentially hazardous waste must be in conformance with the requirements set forth in the following regulations:

- *Enabling Legislation – California Administrative Code, Title 22, Division 4, Chapter 30.*
- *California Health and Safety Code, Division 20, Chapter 6.5.*

Interstate 80, Taylor Road and the Union Pacific Railroad are used as corridors to transport hazardous materials through the community. The risk of upset associated with spills from trucks or trains are considered low, and the General Plan Update includes policies, that if implemented, would minimize impacts to the extent possible. However, the Town has little control over the nature and frequency of hazardous materials traversing the community on these rights-of-way, which are regulated by the state. Accidents could occur, and the Town would be adversely affected by it regardless of any General Plan Update policies that would provide potential mitigation. Impacts are considered to be unlikely, but potentially significant.

Traffic accidents involving large trucks or trains hauling hazardous materials could result in a public safety hazard. In addition to traffic related incidents, hazardous materials spills could be caused by ground shaking associated with a large earthquake or other soil related hazards (landslide, debris flow, liquefaction, etc.). Hazardous material containers not properly secured could be felled and/or ruptured. Improperly segregated materials could result in toxic or explosive reactions.

Proposed Policies That Mitigate Potential Impacts. The following policies, as outlined in the Draft Public Health and Safety Element, are specifically intended to address risks relating to hazardous materials use, storage and transportation:

- **Policy PH&SE 3.** Loomis shall comply with Placer County's Emergency Response Plan, as well as revise the Town Emergency Plan to address Town-specific issues.

- **Policy PH&SE 8.** Loomis shall continue to train and equip Town personnel to cope with emergency disaster situations, including hazardous material incidents.

- **Policy PH&SE 11.** Town policies concerning the use, storage and transportation of hazardous materials, and regarding underground or above ground storage tanks, should reflect the Placer County Environmental Health Division and the State Regional Water Quality Control Board policies and requirements.

In addition, the following implementation measures would further address hazardous materials issues:

- **Implementation Measure PH&SE 1.** Loomis shall revise its Town Emergency Plan every five years.

- **Implementation Measure PH&SE 19.** All discretionary project applications shall include information involving the proposed use and amounts of, storage, handling, transport and/or disposal of hazardous materials/wastes and any previous use, storage, handling and/or disposal of hazardous materials/wastes.

- **Implementation Measure PH&SE 20.** The Town shall develop a list of land uses or businesses that typically use, store or generate hazardous materials/wastes, to be used as a screening tool during the environmental review process.

- **Implementation Measure PH&SE 21.** Emergency preparedness exercises should be conducted at least once every two years. Exercises shall be designed to test and upgrade disaster response plans. Disaster planning scenarios and emergency response plans shall include contingencies for: [among other issues] a major release of hazardous materials from a simulated road or rail accident.

These measures would generally be expected to minimize impacts related to hazardous materials. However, it is recommended that the following policies be added to provide further direction for processing projects in areas where hazardous materials could be an issue:

- **Additional Policy HM-1.** As individual developments are proposed, the Environmental Health specialist responsible for the project will review lists of hazardous materials provided by the applicant as part of the project description to determine consistency with the State Health and Safety Code. A site visit may be necessary to determine compatibility to surrounding areas. Whether the hazardous material impacts of a project are significant shall be decided on a case-by-case basis and depends on:

- *Individual or cumulative physical hazard of material or materials.*
- *Amounts of materials onsite, either in use or storage.*
- *Proximity of hazardous materials to populated areas and compatibility of materials with neighboring facilities.*
- *Federal, State, and local laws, and ordinances, governing storage and use of hazardous materials.*
- *Potential for spill or release.*
- *Proximity of hazardous materials to receiving waters or other significant environmental resource.*

- **Additional Policy HM-2.** The storage, handling and disposal of potentially hazardous waste must be in conformance with the requirements set forth in the following regulations:
  - *Enabling Legislation – California Administrative Code, Title 22, Division 4, Ch. 30.*
  - *California Health and Safety Code, Division 20, Chapter 6.5.*

Residual Impacts

Implementation of these policies would reduce risks associated with hazardous materials use to the extent possible. However, there is little the Town can do to avoid impacts from hazardous materials that are transported through the community. Consequently, impacts from the regional transport of hazardous materials source are considered significant and unavoidable. Potential risks associated with specific facilities involving the use of hazardous materials that are proposed in the community in the future would be subject to separate environmental review.

3.7 HYDROLOGY (Flood Hazard and Water Resources)

Setting

The following summarizes the potential flood conditions and water resources in the Loomis planning area.

Water Resources. Most of the Town of Loomis is supplied by the Placer County Water Agency (PCWA). However, some of the more rural portions of the planning area are not connected to the PCWA's infrastructure, and are supplied by private wells. Each source of water is described in greater detail below.

Placer County Water Agency. The Placer County Water Agency (PCWA) provides domestic water service throughout Placer County, including the Loomis community. The Agency's water supplies include 125,000 acre-feet of water per year (AFY) from the Yuba-Bear River watershed and 120,000 AFY from the Middle Fork of the American and Rubicon rivers. An additional 117,000 AFY can be purchased from the U.S. Bureau of Reclamation.

Service Area. Loomis is within PCWA's Zone 1 service area, which also extends from as far north and east as Auburn, west to Lincoln, and south to Granite Bay. PCWA operates five water treatment plants in Zone 1: the Auburn, Bowman and Newcastle treatment plants serve the upper portion of Zone 1, while the Foothill and Sunset plants serve the lower portion of the service area.

Distribution and Storage Facilities. The Foothill/Sunset water treatment system provides the required water treatment for the domestic water supplied to the Loomis community, as well as some adjacent areas. The treatment capacity is 32 million gallons per day (mgd), which is sufficient to serve the present needs of its service area (about 7,500 connections). In 1999, the maximum day demand was about 30 mgd. However, the Agency's current outstanding commitment for treated water service, including already paid connections in the Foothill/Sunset system, is 35.5 mgd.

To accommodate this demand, the PCWA is currently expanding the Foothill Water treatment Plant by 28 mgd, which will increase the overall capacity in the system to 60 mgd. The first phase of improvements, upgrading Foothill's filter system, will yield up to 8 mgd of increased capacity prior to summer 2001. Completion of the project is expected in 2002. The PCWA does not anticipate any limitations in service during that time.

In May 1998, under Resolution 98-23, the Board of Directors reserved 6,000 acre feet of water to serve up to 8 mgd of new demand from the Foothill WTP expansion and 2.5 mgd of new demand within the Auburn-Bowman system, until completion of a permanent, 35,500 acre foot capacity American River Pump Station. The Agency estimates that approximately 4,200 acre feet of that reserved water supply remains un-requested as of the date of this letter.

With the completion of a permanent American River Pump Station, the Agency will be able to commit to a firm supply of agricultural water and supply the remaining 20 mgd of treatment capacity available from the Foothill Water Treatment Plant expansion. The PCWA estimates that at the current rate of growth of communities within its service area, it will take a out 10 years for the Foothill WTP expansion capacity to be fully utilized (see PCWA's response to NOP). The ability to serve additional projects would largely be the function of the reservation capacity by others through the payment of PERC.

The PCWA's current plan is to further expand the availability of treated water for development in western Placer County through the planned diversion and treatment of 35,000 are feet of water from the Sacramento River. With this source, the PCWA anticipates it will be able to serve its subscriber's needs including those of Loomis, through 2030. However, obtaining Sacramento River water would first entail an environmental review and permitting process, and is likely to include the development of a Habitat Conservation Plan for much of western Placer County.

Water reaches the Foothill Water Treatment Plant from two conduits: PG&E's South Canal is the main source, while the PCWA's Boardman Canal is a secondary source. The water is stored in two reservoirs, the Penryn Tank in Penryn and Mammoth Reservoir between King and Horseshoe Bar roads. Both are located outside the planning area. The Penryn Tank stores about 1 million gallons of treated water, while Mammoth Reservoir stores canal water.

The Cross-Basin Pipeline is planned to eventually connect the Foothill Water Treatment Plant to the Sunset Water Treatment Plant, ultimately providing additional service to Loomis and the areas north and east of Loomis. Phases I and II of the Cross Basin Pipeline were recently completed and are currently in service.

Residential, commercial and industrial customers in the Town receive water service by feeder lines that branch from a 24-inch main running along the Union Pacific Railroad corridor on the west side of Taylor Road. The primary north-south main in the community is a 12-inch pipeline along Laird Road.

The PCWA is in the final stages of design on the Penryn Lincoln Sunset Pipeline. When complete, this 42/30 inch pipeline will provide needed transmission capacity from the Foothill WTP to Lincoln, Rocklin, Loomis and portions of the unincorporated County. The agency anticipates completion of this pipeline prior to the summer of 2002,

System Deficiencies. PCWA's Zone 1 Water System Master Plan identifies no major problems with the distribution system in the planning area. Several performance deficiencies, such as high velocity in the pipes passing through Penryn and low velocity in the pipes near Horseshoe Bar, will be resolved when a pipeline is installed from Penryn to Sunset, an action that is expected to be completed in 2002 (Placer County, *Horseshoe Bar/Penryn Community Plan Draft EIR*, 1993; PCWA, NOP response letter, January 2000).

Groundwater (Private Wells). Portions of the Loomis community do not have access to the PCWA's distribution system and are supplied by private wells. The rural residential properties along Barton Road are within the largest area in Loomis not served by the PCWA. Groundwater distribution in the planning area is sporadic and well yield is highly variable. Water quality varies with the source. Granitic rock wells provide the best water quality in the area and many of the area's wells are of this type. Wells overlying alluvial deposits vary from low to moderate quality. Many wells in the area experience iron and manganese contamination, sometimes associated with low yield.

Groundwater Characteristics. The Loomis planning area overlies a portion of the Placer County Hydrologic Basin, as defined by the California Department of Water Resources. Groundwater yield within this basin is sporadic and highly variable. Individual wells may demonstrate sufficient yields, while nearby wells may show almost no yield (Horseshoe Bar/Penryn Community Plan Draft EIR, 1993). Groundwater in sufficient quantity to supply domestic requirements occurs only in small openings along bedrock fractures. Wells within alluvial Terrace deposits are unreliable and subject to surface contamination. During recharge by winter rains, water tables rise up to near the surface, where the quality of groundwater decreases as it intercepts septic tank leach zones.

Well depths typically range from 50 to 150 feet below the surface, with the most common depth of encountering water within granitic rocks being between 60 and 70 feet. The average production for granitic rock wells in the planning area is 4 to 9 gallons per minute. (*Horseshoe Bar/Penryn Community Plan Draft EIR*, 1993). Although few comprehensive groundwater studies within the planning area are available, groundwater depth is known to be highly variable. For example, groundwater depth in the southeastern portion of the planning area is estimated to be in the range of 300 feet below the surface (Town of Loomis, *Sherwood Park Draft EIR*, 1998).

There has been no recent hydrogeologic evaluation of available groundwater supplies within the underlying basin. Livingston (1974) estimated the volume of available groundwater to be between 40 and 200 million gallons per day.

Water Quality. Virtually no data on streamflow and water quality for streams in the planning area were found in a review of local, state, and federal agency records. Limited water quality data, however, are available from PCWA for its canal and water distribution system. Although the source of PCWA's water is outside the planning area, a portion of the canal system flows through the area. Test results show that contaminants levels of inflow into the canal distribution system are consistently below maximum allowable levels, except those of coliform bacteria, which fluctuate with the time of year (Placer County, *Horseshoe Bar/Penryn Community Plan Draft EIR*, 1993).

The primary sources of pollution to surface and groundwater resources include stormwater runoff from paved areas, which can contain hydrocarbons, sediments, pesticides, herbicides, toxic metals, and coliform bacteria. Improperly placed septic tank leach fields can cause similar types of contamination. Illegal waste dumping can introduce contaminants such as gasoline, pesticides, herbicides and other harmful chemicals. The County Environmental Health Department regulates water quality, and can require spot tests of wells at any time to monitor for contaminants. While no detailed study has been performed, several shallow wells have shown high nitrate concentrations, suggesting surface contamination.

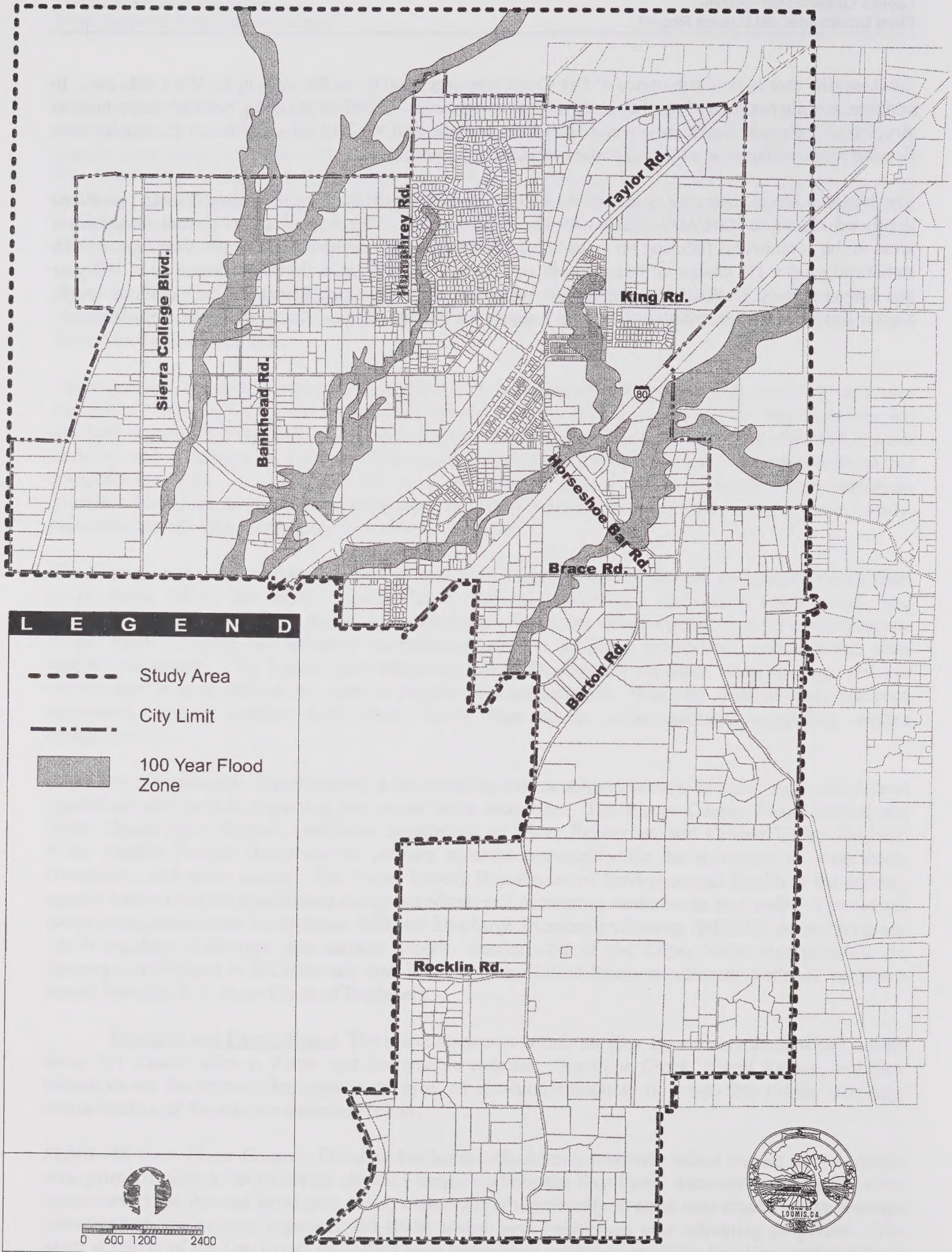
Regulatory Framework. Development in the planning area is subject to various local, state, and federal regulations and permits regarding the use of water resources. The Placer County Flood Control and Water Conservation District, California Department of Water Resources, and Central Valley Regional Water Quality Control Board are the primary agencies responsible for the protection of watersheds, floodplains, and water quality. The Placer County Department of Environmental Health is the primary agency responsible for establishing design standards and permitting septic tanks and wells. The federal government administers the National Pollutant Discharge Elimination System (NPDES) permit program, which regulates discharges into surface waters. Section 404 of the Clean Water Act prohibits the discharge of dredged or fill materials into Waters of the United States or adjacent wetlands without a permit from the U.S. Army Corps of Engineers.

Drainage and Flood Hazard. The planning area is within the Dry Creek watershed, which covers about 101 square miles in Placer and Sacramento counties. Antelope Creek, Secret Ravine, and their tributaries are the primary drainages in the area, all of which ultimately flow into Dry Creek. Drainage characteristics of the area are described below.

FEMA 100-Year Flood Hazard. Flooding has historically been a relatively minor hazard in the Loomis area, primarily due to its relatively elevated location within the Dry Creek watershed. However, some homes have been flooded in the past during major rainfalls, primarily in areas near creeks where drainage infrastructure has become impeded, and flood waters have backed up onto adjoining properties. The lower portions of the Dry Creek watershed have historically been harder hit by flooding, particularly in

the Roseville area (where tributaries of Dry Creek converge) and in the flatlands in the Rio Linda area. In addition, certain portions of the Town are subject to consistent but minor flooding, notably the portions of Antelope Creek near Saunders Avenue, Del Mar Avenue, and No Name Lane. Secret Ravine has also flooded in the recent past, affecting some neighboring properties.

The National Flood Insurance Study of the Federal Emergency Management Agency (FEMA) produced the Flood Insurance Rate Map (FIRM) for the Town in 1998. The map identifies special flood hazard areas in the community, focusing on areas that could be inundated in the event of a 100-year flood (which statistically has a 1% chance of occurring in any given year). The map shows the locations of 100-year and 500-year flood plains in the community, which are generally along Secret Ravine, Antelope Creek, Sucker Ravine, and their tributaries. Figure 5 shows the FEMA 100-year flood zone in the community.



Town of Loomis

Figure 5

FEMA 100-Year Flood Plain

Source: FEMA, June 1998

Local Flooding Concerns. Inadequately-sized culverts and bridges can create impediments to the passage of high water flow in streams and swales. Undersized infrastructure typically result in short-term back-ups behind the culvert or bridge, with pooling water in such areas, in effect, an unintended detention basin. Areas of potential concern in Loomis could include culverts under Interstate 80; the Horseshoe Bar Road crossing over Secret Ravine; the railroad and Taylor Road crossing of Sucker Ravine; and various crossings of Antelope Creek and its tributaries, at King Road, Sierra College Boulevard, and Citrus Colony Road (north of the Town). Various culverts and storm drains throughout the Town are also subject to potential flooding in the event that they become clogged with debris during heavy rains.

The Town of Loomis Specific Plan EIR identifies drainage problems associated with the culvert under the southbound freeway ramp of Interstate 80 into a poorly maintained swale near South Walnut Street. Other similar deficiencies are likely elsewhere, most notably the Sunrise Loomis subdivision. During the heavy rain season of 1995, localized flooding was experienced on some low-lying properties near Secret Ravine and Antelope Creek, causing property damage in some cases. In general, flooding occurred because of downstream blockages within flood channels or culverts.

Flood maintenance is an ongoing problem throughout Placer County. In Loomis, many of the major drainages are located on private property, and the Town generally does not have access to conduct maintenance operations to keep channels clear of debris. There is no clear responsibility regarding maintenance of drainages on private property (Town or property owners), though newer developments are required to include easements to facilitate maintenance. Nevertheless, this does not address existing deficiencies, which are experienced throughout the community. The Town Council recently approved funding for a drainage master Plan, which would in part be intended to address local flooding concerns.

Dam Inundation. Loomis is not in the dam inundation area for any major stream or river in the region. There are no dams or reservoirs (except small local detention facilities) upstream of Loomis on any tributary of Antelope Creek or Secret Ravine. Loomis is not subject to potential damage from dam inundation.

Regulatory Framework. The Placer County Flood Control and Water Conservation District (PCFCWCD) is responsible for developing flood control management strategies within the County, with each City or Town responsible for their implementation. All parties to this agreement (Placer County, City of Auburn, City of Colfax, City of Lincoln, Town of Loomis, City of Roseville, City of Rocklin and Placer County Flood Control and Water Conservation District) have agreed to cooperatively solve water conservation, drainage and flood control problems. The Dry Creek Watershed Flood Control Plan (James M. Montgomery, 1992) prepared for the PCFDWCD and the Sacramento County Water Agency addresses flood control within the watershed, and suggests the following development principles:

- New development should provide on-site detention;
- Local policies should be implemented to restrict the removal of riparian vegetation along channels;
- Regional detention basins should be constructed;
- Inadequate bridges and culverts should be replaced; and
- Procedures for flood preparedness should be formulated.

The Town of Loomis Resolution 97-70 establishes an agreement between PCFCWCD and the Town to coordinate the development, support and operation of PCFCWCD facilities. Within the planning area, the Loomis Town Manager is the Town Floodplain Administrator. The PCFCWCD provides guidance to the Town in dealing with potential flooding impacts. To help implement the above principles, on-site

detention that reduces runoff to 90% of existing flows is required of new development within the Dry Creek watershed.

Impacts and Mitigation Measures

Significance Thresholds. Hydrology impacts for projects allowed under the General Plan Update would be on considered significant if they would:

- *Increase runoff flood peaks over existing conditions; any increase in site runoff could exacerbate downstream flood-prone areas;*
- *Potentially cause a violation of state or federal water quality standards or objectives, including general narrative objectives for preventing aquatic toxicity, maintaining existing beneficial uses, and anti-degradation of state waters.*
- *Result in disturbance of existing channel banks and channel beds to the extent that short-term or long-term erosion and siltation could occur upstream or downstream;*
- *Potentially deplete surface water and ground water resources used for other beneficial uses; or*
- *Locate structures in a Federal Emergency Management Agency-approved 100-year floodplain.*

Buildout within the Town would have a significant effect to water supplies if demand exceeds the available supply, thereby causing water shortages during average or peak demand periods either within the project area or region. The project would also have a significant effect if the local water purveyor's current or proposed supply and storage facilities, such as pipelines or treatment facilities are not adequate to serve the Town.

Key Issues. The following key environmental issue related to water resource and flooding issues was identified during the preparation of the proposed General Plan Update. These are the basis for determining potential impacts with respect to future development under the General Plan Update.

- *A number of properties and roadways along local creeks have been flooded during winter storms, despite flood preventative measures.*

Potential Impacts. Based on the key issue identified above, the following are considered potentially significant water resource and flooding related impacts by the community:

- Exposure of lives and property to flood hazard; and
- The potential for unreliable water quality or quantity to diminish the health and safety of the community.

Drainage. Flooding can cause widespread damage to affected areas. Buildings and vehicles can be damaged or destroyed, while smaller objects can be buried in flood-deposited sediments. Floods can also cause drowning or isolation of people or animals. In addition, floodwaters can break utility lines, interrupting services and potentially affecting health and safety, particularly in the case of broken sewer or gas lines.

The secondary effects of flooding are due to standing water, which can result in crop damage, septic tank failure, and water well contamination. Standing water can also damage roads, foundations, and electrical circuits.

Development along Secret Ravine, Antelope Creek, Sucker Ravine, or their tributaries could expose lives and property to flood risk in the event of a major flood event. In addition, further development within the planning area would be expected to increase community-wide impervious surface area, thereby increasing overall runoff into area creeks during major storms. This could increase flood potential in other parts of the planning area.

Water Quality. The continued use of septic tanks in the rural portions of the planning area may adversely affect both surface and groundwater quality. In a few cases, septic tanks in Town have failed, but there has been no enforcement because of a lack of funding, and no complaint was registered. Parts of the planning area are subject to high nitrate concentrations from overuse of septic tanks and agricultural uses. Water quality impacts are potentially significant.

Water Supply. PCWA provides water service to the Town. To accommodate this demand, the PCWA is currently expanding the Foothill Water treatment Plant by 28 mgd, which will increase the overall capacity in the system to 60 mgd. The first phase of improvements, upgrading Foothill's filter system, will yield up to 8 mgd of increased capacity prior to summer 2001. Completion of the project is expected in 2002. The PCWA does not anticipate any limitations in service during that time.

The PCWA's current plan is to further expand the availability of treated water for development in western Placer County through the planned diversion and treatment of 35,000 are feet of water from the Sacramento River. With this source, the PCWA anticipates it will be able to serve its subscriber's needs including those of Loomis, through 2030. However, obtaining Sacramento River water would first entail an environmental review and permitting process, and is likely to include the development of a Habitat Conservation Plan for much of western Placer County.

The PCWA is in the final stages of design on the Penryn Lincoln Sunset Pipeline. When complete, this 42/30 inch pipeline will provide needed transmission capacity from the Foothill WTP to Lincoln, Rocklin, Loomis and portions of the unincorporated County. The agency anticipates completion of this pipeline prior to the summer of 2002.

Proposed Policies That Mitigate Potential Impacts. Various General Plan Update policies would determine the appropriate intensities of development for different parts of the planning area to minimize flood risk. The Public Health and Safety Element includes a number of policies to minimize flood hazard and problems related to water quality. These include:

- **Policy PH&SE 3.** Loomis shall comply with Placer County's Emergency Response Plan, as well as revise the Town Emergency Plan to address Town-specific issues.

- **Policy PH&SE 4.** Per Placer County Flood Control District directive, n~~N~~ew development shall be prohibited in the future 100-year flood zone, based on buildout conditions as determined by FEMA and FIRM maps. Development will be required to adhere to Placer County Flood Control District policies and the Dry Creek Watershed Control Plan.

- **Policy PH&SE 5.** New development near stream channels shall be designed so that reduced stream capacity, stream bank erosion, or adverse impacts on habitat values are avoided.

In addition, the following General Plan Update implementation measures would further mitigate potential impacts:

- **Implementation Measure PH&SE 1.** Loomis shall revise its Town Emergency Plan every five years.

- **Implementation Measure PH&SE 8.** The Town shall work with property owners to maintain ~~floodways~~floodplains critical to the safety of neighboring properties.

- **Implementation Measure PH&SE 9.** The Town engineer shall develop a hazards map of the town, with sufficient detail to be useful for engineering purposes.

- **Implementation Measure PH&SE 10.** The Town should monitor bridges, over and underpasses, and walls in the public right-of-way to ensure safety.

- **Implementation Measure PH&SE 13.** The Town shall develop standards and restrictions within identified floodplains or areas subject to inundation ~~by a 100-year flood~~. These might include subdivision design, setback requirements, and development intensity/density standards.

- **Implementation Measure PH&SE 14.** The Town should work with property owners to clear chronically debris-clogged culverts and channels on an annual basis to minimize upstream flooding potential.

- **Implementation Measure PH&SE 21.** Emergency preparedness exercises should be conducted at least once every two years. Exercises shall be designed to test and upgrade disaster response plans. Disaster planning scenarios and emergency response plans shall include contingencies for [among other issues] a major flood event.

These policies and implementation measures would reduce flood and water resource related impacts. In addition, the following new policies shall be added:

- **Additional Policy H-1.** Further channelization and/or banking of creeks or streams within the planning area shall be discouraged, unless no other alternative is available to minimize flood risk. Setbacks from flood sources shall be the preferred method of avoiding impacts.

- **Additional Policy H-2.** Site-specific recommendations of the Town's Drainage Master Plan, upon completion, shall be applied to individual development projects as appropriate.

In addition, **Implementation Measure PH&SE 13** should be reworded to address standards in areas that are potentially inundated by floods, rather than specific impacts within the 100-year flood zone. As noted in **Policy PH&SE 4**, development is prohibited in the 100-year flood zone. The change in the implementation measure is necessary to remove a potential contradiction.

Residual Impacts

Implementation of these Public Health and Safety Element policies and implementation measures, in addition to the recommended policy, is anticipated to fully mitigate impacts relating to flood hazards. Water quality impacts would be reduced to less than significant with implementation of proposed policies, in conjunction with NPDES requirements applied to individual projects. Provided that anticipated facilities expansions are completed, impacts related to water supply would be reduced to a less than significant level. Otherwise, impacts are potentially significant and unavoidable.

3.8 LAND USE

Setting

Existing land uses in the Loomis Planning Area are discussed in the Draft Land Use Element and Technical Background Report for the General Plan Update, available for public review and incorporated by reference. Land Use conditions in the town are also summarized in Section 2.0 of this EIR, *Project Description* (see Figures 1 and 2). In summary, the following relevant land use conditions and issues exist in the Town:

Community Character. The Town of Loomis is characterized by a village-style core containing a historical, small-scale downtown, surrounded by medium-density housing and some light industry, with much lower density rural residential areas beyond. Under the proposed General Plan Update, this historical arrangement of land uses would be maintained. Higher-intensity uses are intended to be concentrated adjacent to the downtown and adjacent to Interstate 80 (I-80), with the land uses in surrounding areas becoming progressively less intense (and with lower residential densities) as the distance from the core increases.

Land Use Designations and Distribution. Loomis is divided into land use designations that reflect its largely rural residential character. Please refer to Table 1 in Section 2.0 for a summary of these designations, with proposed distribution by acreage. The Project Description also discusses the location of land uses, and areas where changes are proposed to occur from the existing plan. Also please refer to the draft Land Use Map, which was prepared for the Draft Land Use Element.

Impacts and Mitigation Measures

Significance Thresholds. According to the CEQA Guidelines, a project can result in adverse environmental impacts relating to land use it is has the potential to substantially alter the existing or planned land use of an area. This standard is somewhat inappropriate for a General Plan update, since updates, by definition, would result in a change of land use. Furthermore, the land use changes resulting from revision of general plans are typically manifest in secondary impacts, such as air quality and traffic. The significance thresholds, therefore, are based on land use compatibility, as defined in the discussion of the publicly-identified key issues below.

Key Issues. The following key environmental issues related to potential land use conflicts were identified during the preparation of the proposed General Plan Update. These are the basis for determining potential impacts with respect to future development under the General Plan Update.

- *Increased urbanization in adjacent communities is threatening to encroach upon the open space and agricultural areas in and surrounding Loomis.*

- *Development pressures suggest that Loomis consider rezoning some of its agricultural/residential land to increase land and infrastructure efficiency. However, residents have expressed their preference for the retention of large lot, rural residential parcels.*

- *Sierra College Boulevard is becoming an important regional circulation route, and may be appropriate for more intensive land uses. However, Town residents have indicated strong support for concentration of more intensive land uses in the traditional downtown core area.*

- *Size restrictions need to be placed on secondary residential units allowed on agricultural and rural residential lots in Loomis.*

- *Traffic increases, particularly on regionally important routes, could lead to future land use incompatibilities.*

Potential Impacts. Based on the key issues identified, the following are considered potentially significant land use impacts by the community:

- Land use incompatibility between residences and industrial uses;
- Incompatibility between rural character and second residential units
- Encroachment and conversion of agricultural lands to non-agricultural uses;
- Access to new commercial and industrial areas could adversely affect residences;

Based on the proposed land use plan, potential incompatibilities could occur at the following locations:

- West of Swetzer Road (industrial/residential interface);
- North of Brace Road (commercial/residential interface)
- Along Secret Ravine, south of I-80 (commercial/residential interface)
- Sierra College Boulevard, near Bankhead Road (commercial/residential interface)
- Along Taylor Road (commercial/industrial/residential interface)

The magnitude of future impacts at these locations is not known, but based on known residential complaints regarding noise, light, and traffic at these locations, it is reasonable to expect future impacts are possible. Such impacts must be considered potentially significant. Please refer to the discussion of traffic, noise and air quality for further discussion of compatibility issues.

Impacts to agricultural resources are discussed in the Initial Study for this project, and are not expected to be significant. No active commercially cultivated agricultural lands are intended for redesignation to urban use.

Access to commercial development could pose land use impacts, most notably associated with the commercial development site at I-80/Horseshoe Bar Road and other possible commercial uses south of I-80. Commercial development would potentially front on residential uses along Brace Road, and increased traffic along this roadway could lead to potentially significant land use impacts.

The potential land use impacts associated with the various land use changes contemplated under the proposed General Plan Update are summarized in Table LU-1. The map identifiers shown in the table refer to those shown in Figure 10 within Section 5.0 Alternatives. Figure 3 in the Project Description also shows these areas in more detail.

Table LU-1. Summary of Potential Impacts of Land Use Redesignations

Map Identifier	Description of Change	Discussion
A	Create commercial nodes on Sierra College Blvd. at King Road and Bankhead (from Residential Estate).	**Purpose of Change:** These changes are proposed because it may be inappropriate to locate residential uses along the most heavily traveled portion of a major roadway. Commercial uses could buffer residents from Sierra College Blvd. **Land Use Impacts:** *Possible conflicts at interface of adjacent residential uses and proposed commercial node.*

Table LU-1. Summary of Potential Impacts of Land Use Redesignations

Map Identifier	Description of Change	Discussion
C	Change from Residential Estate to Office Professional	**Purpose of Change:** Proximity to I-80 makes this parcel potentially inappropriate for residential use. **Land Use Impacts:** *None anticipated.*
D	Change from Neighborhood Commercial to General Commercial	**Purpose of Change:** Redesignation provides additional flexibility on the site, which is bounded by I-80 and possibly more suited for general commercial use. **Land Use Impacts:** *Possible conflicts at interface of adjacent residential uses along Silver Ranch Avenue to the west.*
E	Change all parcels between I-80 and Secret Ravine from Residential Rural to General Commercial, with policies requiring planned development	**Purpose of Change:** The area may be more suited to commercial use because of its proximity to I-80, and could act as the Town's future regionally serving commercial center. **Land Use Impacts:** *Possible conflicts at interface of adjacent residential uses to the south and east across Secret Ravine and Brace Road. Impacts are potentially substantial, which is the reason many proposed policies address development restrictions in this area.*
F	Change the allowable residential density from 1 unit per 4.6 acres to 1 unit per acre, with specific policies	**Purpose of Change:** This area is located adjacent to development in Rocklin, as well as the St. Francis Woods development in Loomis, which has the same density. It is a logical area to transition from the urban densities to the west in Rocklin, and the rural development along Barton Road in Loomis. With policies to ensure clustering of units along the Rocklin side, and appropriate setbacks and landscaping on the Loomis frontages, this change would reduce potential land use conflicts in the area. **Land Use Impacts:** *Increases residential potential, possibly resulting in increased land use impacts related to traffic and noise. Specific policies are intended to address these impacts.*
H	Change Planned Development to General Commercial, just east of downtown core	**Purpose of Change:** This area provides commercial development opportunities that could round out the downtown core. **Land Use Impacts:** *Could conflict with adjacent residential uses to the north, along Laird Street. The General Plan suggests buffering with low-profile offices along this interface, with specific design objectives..*
I	Allow some office along with the General Commercial, just north of I-80	**Purpose of Change:** This area provides commercial development opportunities that could round out the downtown core. **Land Use Impacts:** *None anticipated. Office uses would allow a better interface with residential uses to the north.*
J	Change from Residential Estate to Business Park, just north of I-80, east of Sierra College Blvd.	**Purpose of Change:** This area provides commercial development opportunities that could round out the downtown core. **Land Use Impacts:** *None anticipated. Office uses would allow a better interface with residential uses to the north.*
K	Change from Residential Low Density (1 acre) to ½-acre minimum, along Mareta Road	**Purpose of Change:** This is to reflect the existing development at this built out subdivision along Mareta Road. **Land Use Impacts:** *None anticipated. Reflects an existing condition.*
L	Change from General Commercial to Office, at corner of Taylor and King Road	**Purpose of Change:** Allows for better transition to adjacent residential uses. **Land Use Impacts:** *None anticipated..*
A, 13, 33	Calls for residential area to increase density from 4.6 acre minimum to 2.3 acre minimum, along Bankhead, south of Sierra College Boulevard	**Purpose of Change:** This area is intended to provide higher densities for development. **Land Use Impacts:** *Several land use conflicts are likely. Higher densities adjacent otI-80, commercial, and Sierra College Boulevard may be inappropriate. Lower densities are recommended as mitigation.*
none	Change from Industrial to Limited industrial, along Swetzer Road, north of King Road	**Purpose of Change:** Less intensive industrial uses would limit potential land use conflicts with residential uses to the west, particularly along Kathy Way **Land Use Impacts:** *None anticipated. Would represent a lessening of impacts compared to the existing condition*
none	Change from Shopping Center to	**Purpose of Change:** Reflects consolidation of designations proposed, and

Table LU-1. Summary of Potential Impacts of Land Use Redesignations

Map Identifier	Description of Change	Discussion
	General Commercial, at two locations near I-80. One is adjacent to Horseshoe Bar Road, the other next to Sierra College Boulevard	provides clarity for commercial development standards intensive industrial uses would limit potential land use conflicts with residential uses to the west, particularly along Kathy Way **Land Use Impacts:** *None anticipated. Reflects existing condition.*

Proposed Policies That Mitigate Potential Impacts. The proposed General Plan Update establishes a planned land use pattern and long-range policies to guide growth within the Town corporate boundary, which is the same as its Sphere of Influence. These policies, to be implemented by a series of implementation measures, are intended to preserve and enhance the quality of the community through methods that are both environmentally sound and equitable to all citizens of the Town.

The General Plan land use designations guide the general distribution, location, and extent of the various types of land uses in the Town. Proposed land use designations will allow for the conversion of undeveloped or vacant land to urban uses. The plan also allows for buildout of existing Town lands. The physical arrangement of established communities would not be disrupted or divided; however, changes in land uses within the Town will result from implementation of the General Plan Update. The following Draft Land Use Element policies address potential impacts related to the key issues described above:

- **Policy LUE D.1.** Loomis shall allow property owners the "right-to-farm" their parcels through the protection and operation of agricultural land uses.

- **Policy LUE D.3.** Loomis shall use zoning designations to protect properties used for agricultural operations from encroachment by urban development.

- **Policy LUE E.11.** Multi-family residential areas shall be designed to be compatible with nearby single family residential neighborhoods in terms of height and massing, and overall design. Multi-family residential development shall not be permitted on arterials serving as entryways to the Town unless substantial setbacks and landscaping are provided.

- **Policy LUE E. (second residential units).** The General Plan Update contains policies limiting the size and distribution of second residential units.

- **Policy LUE F.9.** Loomis shall not allow new industrial uses that will adversely impact either the environment or surrounding land uses.

- **Policy LUE G.1.** This policy relates to the proposed Business Park designation northeast of Sierra College Boulevard and Taylor Road. According to the policy, "*Business park development shall require access from Sierra College Boulevard, with no access to the site through the residentially-designated areas to the north and west.*" Further, "*proposed development shall be separated from the north and west property lines by a buffer of dense landscaping at least 50 feet in width. Development adjacent to the buffer shall be limited to low-profile, one-story structures. Parking areas shall be separated from the buffer by buildings. No outdoor storage or business activity areas shall be allowed, except for outdoor sitting, eating and recreation areas for employees.*"

- **Policy LUE G.2.** This policy relates to the proposed General Commercial designation along I-80 between the Raley's Center and King Road. According to the policy, *"proposed development shall be planned to provide a gradual transition of intensity between development adjacent to I-80 and the existing residential areas to the north, to minimize the potential for land use conflicts with residential uses, and problems for residents. These sites should be developed with a mixture of land uses consisting of three tiers: general commercial and/or office uses should be located adjacent to Ralph's Center; low profile office structures should be placed in a second tier after the commercial uses; and medium- to medium-high density residential should be located adjacent to the existing residential areas to the north of this site."*

- **Policy LUE G.5.** This policy relates to the proposed Commercial south of I-80. According to the policy, *"primary access to commercial development shall be from Horseshoe Bar Road, with secondary access point on Brace Road."*

- **Policy LUE G.4.** This policy relates to the proposed General Commercial designation on Taylor Road Northwest of Sierra College Boulevard. According to the policy, *"these parcels should be developed with commercial uses along the Taylor Road frontage, with office uses or multi-family residential behind the commercial, to buffer the adjacent single-family residential uses from the noise, glare, and activities associated with commercial uses."*

In addition to these proposed measures, the following policies should be added to the General Plan Update to further minimize land use impacts:

- **Additional Policy LU-1.** The boundaries of proposed land use designations should be coincident with existing property boundaries, to the extent possible. One possible exception may be when the frontage of a large lot along a major arterial would be inappropriate for residential uses, while much of the remainder could be suited for such use.

- **Additional Policy LU-2.** Commercial land uses shall be discouraged away from the Town's core area, except when property is demonstrably unsuitable for residential use because of proximity to noise sources such as major arterials or railroad lines.

Residual Impacts

Implementation of proposed policies, in conjunction with policies recommended in this EIR, is anticipated to fully mitigate impacts relating to land use conflicts. Please also refer to the sections of this EIR concerning noise and visual resources. No additional mitigation is required.

3.9 NOISE

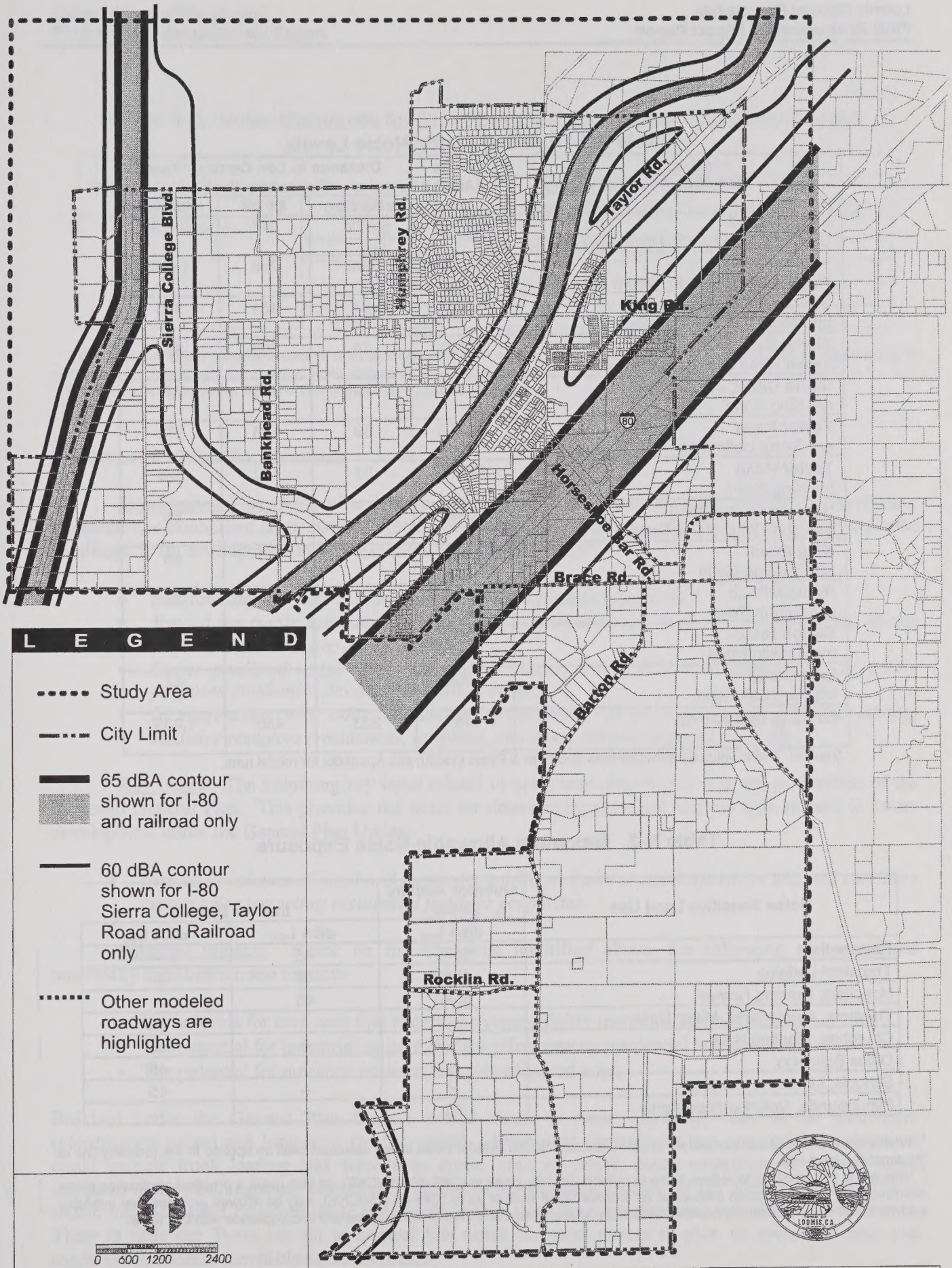
Setting

Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The sound pressure level is measured on a logarithmic scale with the 0 dB level based on the lowest detectable sound pressure level that people can perceive (an audible sound that is not zero sound pressure level). A doubling of sound energy is equivalent to an increase of 3 dB. Because of the nature of the human ear, a sound must be about 10 dB greater than the reference sound to be judged as twice as loud. In general, a 3 dB change in community noise levels is noticeable, while 1-2 dB changes are generally not perceived. Typical ambient sounds range from 30 dBA (very quiet) to about 85 dBA (very loud). Typical exterior ambient noise levels away from obvious noise sources are about 50 to 55 dBA.

There are many rating scales for noise, the most widely-used being the Day-Night Average Level (Ldn) and Community Noise Equivalent Level (CNEL). Both methods aggregate noise levels over a 24-hour period, accounting for the annoying effects of sound, particularly at night. In general, interior sound levels exceeding 45 dBA CNEL are considered intrusive. Typical building construction materials filter out about 20 dBA. An exterior noise level of 60 dBA CNEL is the goal of the updated General Plan. However, exterior sound levels up to 65 dBA CNEL are conditionally acceptable for housing, lodging, or meeting facilities, provided adequate building design and construction materials are used to reduce interior noise levels (see Table N-2). The conditionally acceptable exterior noise level for commercial and office buildings is 77 dBA CNEL.

The primary source of noise affecting the Town is traffic using Interstate 80. The Union Pacific Railroad corridor carries freight and passenger trains that also produce substantial noise. Other less prominent noise sources within the Town include the use of equipment associated with agricultural or industrial uses. School activities such football games and band practice are other noise sources affecting the areas near Del Oro High School. See the Draft Public Health and Safety Element for more information regarding the existing noise environment in the Town.

Existing noise levels in the Town near major roads are shown in Table N-1. As a point of reference, Loomis' proposed General Plan Update exterior standard for noise sensitive structures is 65~~60~~ dBA Ldn, with an interior standard of 45 dBA Ldn. This is ~~the same as is currently adopted by Placer County, and~~ consistent with state standards. Table N-2 shows the land use compatibility matrix for use in making land use planning decisions. Table N-3 shows proposed standards for short-term noise events in the community. Figure 6 shows existing noise contours in the community, which account for both rail and traffic noise.



Town of Loomis

Figure 6

Existing Noise Contours

Table N-1. Existing Traffic Noise Levels

Roadway Segment	Traffic (ADT)	Distance to Ldn Contour from Centerline (feet)		
		70 dB	65 dB	60 dB
Interstate 80 Sierra College Blvd to Horseshoe Bar Rd.	84,000	379	816	1,757
Interstate 80 Horseshoe Bar Rd. to Penryn exit	78,000	360	776	1,672
Sierra College Boulevard Interstate 80 to Taylor Road	12,300	84	181	390
Sierra College Boulevard Taylor Road to Bankhead Road	9,300	70	150	324
Sierra College Boulevard n/o King Road	6,100	53	113	244
Taylor Road e/o Sierra College Blvd.	10,500	58	126	271
Taylor Road s/o King Road	13,800	51	110	238
Horseshoe Bar Road Interstate 80 to Brace Road	5,300	-	40	86
King Road w/o Swetzer Court	5,300	-	40	86
Rocklin Road w/o Barton Road	4,500	-	36	77
Barton Road n/o Rocklin Road	1,700	-	-	40
Laird Road s/o High Cliff Road	1,900	-	-	44
Existing Rail Activity	n/a	223	480	1,035

Source: Traffic volumes from Caltrans and Fehr & Peers (1998); see Appendix for model runs.

Table N-2. Maximum Allowable Noise Exposure

Noise Sensitive Land Use	Outdoor Activity Areas[1]	Interior Spaces	
	dBA L_{dn}	dBA L_{dn}	dBA L_{eq}
Residential	65~~60~~	45	--
Transient Lodging	65~~60~~	45	--
Hospitals, Nursing Homes	65~~60~~	45	--
Theaters, Auditoriums, Music Halls	--	--	35
Churches, Meeting Halls	65~~60~~	--	40
Office Buildings	--	--	45
Schools, Libraries, Museums	--	--	45
Playgrounds, Neighborhood Parks	70	--	--

[1] Where the location of outdoor activity areas is unknowns, the exterior noise levels standard shall be applied to the property line of the receiving land use.

[2] Where it is not possible to reduce noise in outdoor activity areas to 65~~60~~ dB Ldn/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 70~~65~~ dB Ldn/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

Table N-3. Noise Standards for Short Duration Events Near Residential Areas

Noise Sensitive Land Use	Duration of Sound (minutes per hour)	Standard	
		Day/Evening (7am – 10pm) dB	Night (10pm – 7am) dB
All Residential	30 - 60	50	40
	15 – 30	55	45
	5 – 15	60	50
	1 – 5	65	55
	Less than 1 minute	70	60

[1] If the offensive noise contains a steady, audible tone (such as a screech or hum), or is a repetitive noise such as hammering, or contains speech or music, the standard limits shown shall be reduced by 5 dB.
[2] Source: State of California Model Community Noise Control Ordinance.

Impacts and Mitigation Measures

Significance Thresholds. To determine the potential noise impacts of the project, a significance threshold was established using state and local noise compatibility criteria. An impact would be considered significant if the development under the General Plan Update would:

- *Substantially increase the ambient noise levels for adjoining areas*
- *Exceed the traffic noise-related standards contained in the Land Use Compatibility Matrix (refer to Table N-2 above);*
- *Cause predicted noise levels at outdoor activity areas to exceed 65~~60~~ dBA Ldn where proposed residential development would occur;*
- *In conjunction with other cumulative development, increase the noise levels at existing sensitive receptors (residences, hospitals, churches, schools or parks) by 3 dB*

Key Issues. The following key issue related to noise was identified during the preparation of the proposed General Plan. This provides the basis for determining potential impacts with respect to future development under the General Plan Update.

- *Increased volumes of local and commuter traffic on Town arterial roadways and rail corridors create noise impacting residential frontage properties.*

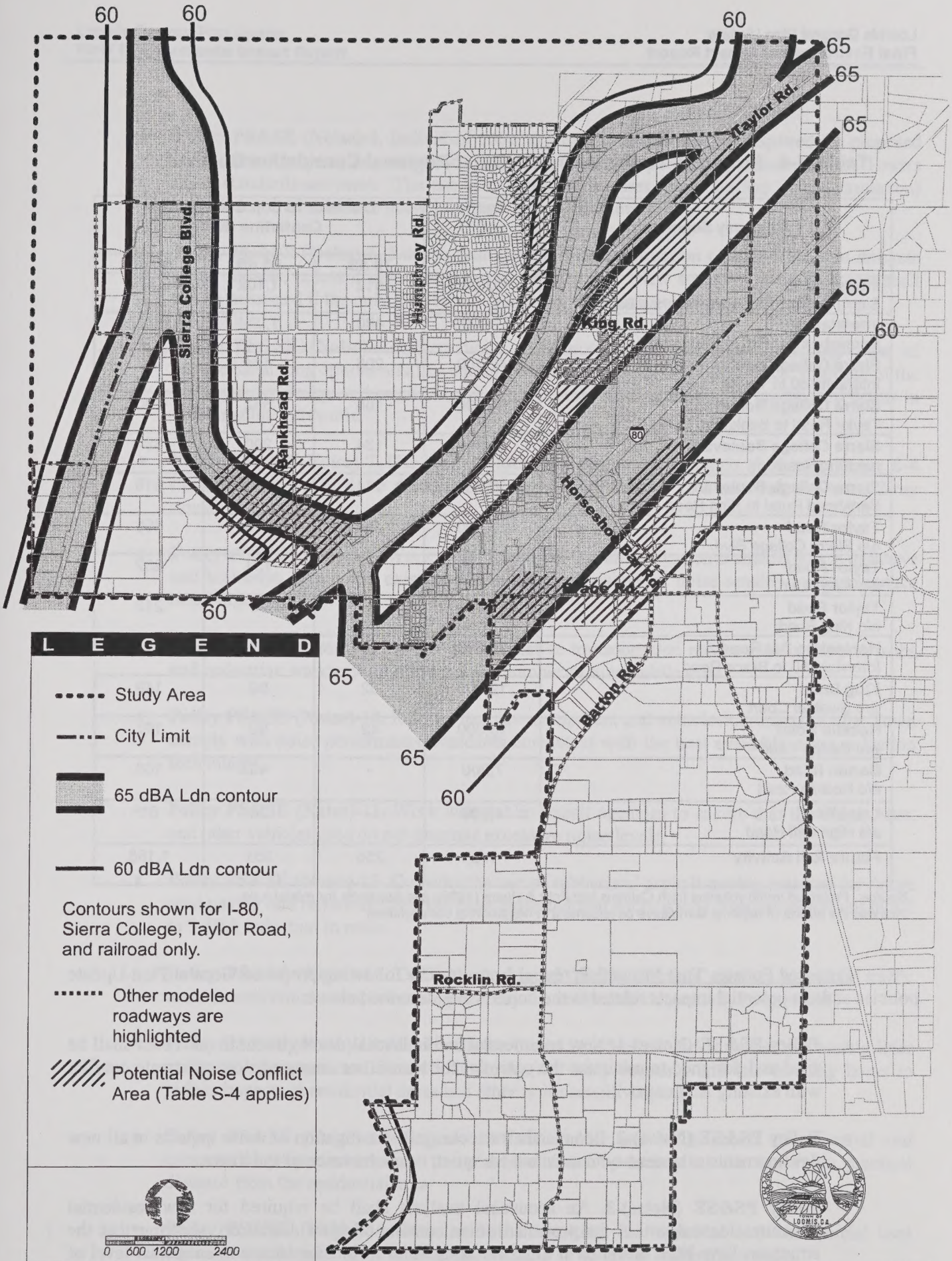
Potential Impacts. Based on the key issue identified above, the following are considered potentially significant noise impacts:

- Noise levels for land uses that exceed the compatibility matrix in Table N-2;
- The potential for industrial noise events to effect nearby residential land uses; and
- The potential for nuisance noise to affect nearby land uses;

Buildout under the General Plan Update would result in noise increases, both in the short-term (construction noise) and long-term (traffic noise). Additional commercial and industrial development could include truck loading and warehouse areas, both of which could contribute to overall noise increases in the planning area. However, it should be kept in mind that by far the greatest contribution to traffic increases (and therefore noise increases) comes from land development outside the Town limits. There is little the Town can do to control this noise increase, except to plan its own land uses and roadways to address inevitable noise increases.

Table N-3 shows projected noise levels in the planning area upon full buildout of the General Plan Update and the general plans of neighboring communities (Figure 7). These projections are based on anticipated traffic increases, which in turn are based on the ultimate land use pattern of the Town and surrounding communities. The projected noise contours are generally similar to the existing noise contours, with the most excessive noise levels along Interstate 80. However, projected traffic increases along Sierra College Boulevard would place land uses within ~~a minimum of 240~~ 360 feet of the roadway near the Taylor Road intersection in excess of 65~~60~~ dBA Ldn, the normally acceptable outdoor noise level.

Ambient noise levels would increase throughout the community as a result of future development, both in the Town and region. Most of the new development that would affect the major roadways (I-80, Sierra College Boulevard) would come from outside the Town, notably from Rocklin, Roseville and Lincoln, all projected to have much greater growth under their general plans than would be expected in Loomis. The increase in noise levels that would result cannot be fully mitigated by measures undertaken by new development, as much of the community will fall well within the 65~~60~~ dBA Ldn contour of major roadways with cumulative development.



Town of Loomis

Figure 7

Projected Noise Contours and Conflict Areas

Table N-4. Projected Traffic Noise Levels at Regional Cumulative Buildout

Roadway Segment	Traffic (ADT)	Distance to Ldn Contour from Centerline (feet)		
		70 dB	65 dB	60 dB
Interstate 80 Sierra College Blvd to Horseshoe Bar Rd.	132,000	512	1,102	2,375
Interstate 80 Horseshoe Bar Rd. to Penryn exit	119,900	480	1,034	2,227
Sierra College Boulevard Interstate 80 to Taylor Road	47,300	206	444	957
Sierra College Boulevard Taylor Road to Bankhead Road	34,800	168	362	780
Sierra College Boulevard n/o King Road	24,900	134	290	624
Sierra College Boulevard Bankhead Road to King Road	18,700	111	239	516
Taylor Road e/o Sierra College Blvd.	23,100	99	213	458
Taylor Road s/o King Road	17,800	61	131	282
Taylor Road e/o King Road	11,700	46	99	213
Horseshoe Bar Road Interstate 80 to Brace Road	17,000	40	87	188
King Road w/o Swetzer Court	12,000	32	69	149
Rocklin Road w/o Barton Road	18,300	42	92	197
Barton Road n/o Rocklin Road	7,200	-	49	106
Laird Road s/o High Cliff Road	4,800	-	38	81
Future Rail Activity	n/a	256	551	1,186

Source: Projected traffic volumes from Caltrans and Fehr & Peers (1999); see Appendix for model runs.
Includes the effects of regional cumulative development in neighboring communities.

Proposed Policies That Mitigate Potential Impacts. The following proposed General Plan Update policies address potential impacts related to the noise issues described above:

- **Policy PS&SE (Noise)-1.** New commercial and industrial development in the Town shall be sited and designed to minimize the potential for harmful or annoying noise to create conflict with existing land uses.

- **Policy PS&SE (Noise)-2.** Loomis shall encourage the mitigation of noise impacts in all new developments as necessary to maintain the quiet, rural ambiance of the Town.

- **Policy PS&SE (Noise)-3.** An acoustical analysis shall be required for new residential structures located within the projected noise contour of 65~~60~~ dBA Ldn, showing that the structures have been designed to limit intruding noise in interior rooms to an annual level of 45 dBA Ldn.

- **Policy PS&SE (Noise)-4.** Individual noise exposure analysis shall be required for proposed development projects as part of the environmental review process, to ensure that the Town's noise standards are meet. The use of mitigation measures (noise buffers, sound insulation) may be required to reduce noise impacts to acceptable levels.

- **Policy PS&SE (Noise)-5.** Loomis shall prohibit the construction of sound walls to mitigate noise impacts, unless it is the only feasible alternative. New sensitive noise receptors shall not be permitted if the only feasible mitigation for noise impacts is a sound wall.

- **Policy PS&SE (Noise)-6.** Where noise mitigation is necessary, the following order of preference among options shall be considered: distance from the noise source; muffling of the noise source; design and orientation of the receptor; landscaped berms; landscaped berms in combination with walls.

- **Policy PS&SE (Noise)-7.** Use the land use/noise compatibility matrix shown on Figure S-4 (Table N-3 of the EIR) to determine the appropriate ness of land uses relative to roadway noise.

- **Policy PS&SE (Noise)-8.** Work with Caltrans to install mitigation elements along freeways and highways adjacent to existing residential subdivisions or noise-sensitive uses to reduce noise impacts.

- **Policy PS&SE (Noise)-9.** Provide for alternative transportation modes such as bicycle paths and pedestrian walkways to minimize the number of automobile trips.

- **Policy PS&SE (Noise)-10.** Require that new equipment and vehicles purchased by the Town comply with noise performance standards consistent with the best available noise reduction technology.

- **Policy PS&SE (Noise)-11.** Work with public transit agencies to ensure that the buses, vans, and other vehicles used do not generate excessive noise levels.

- **Policy PS&SE (Noise)-12.** Consider the use of rubberized asphalt paving material for future road paving and re-paving. Studies have indicated that such paving material can result in a 3 to 5 dBA reduction in noise.

- **Policy PS&SE (Noise)-13.** Consider the use of "traffic calming" devices to reduce traffic noise in residential areas, when supported by the residential community in question..

- **Policy PS&SE (Noise)-14.** Work with the Union Pacific Railroad to properly maintain lines and establish operational restrictions during the early morning and late evening hours to reduce impacts in residential areas and other noise sensitive areas.

- **Policy PS&SE (Noise)-15.** Require that automobile and truck access to industrial and commercial properties adjacent to residential areas be located at the maximum practical distance from the residential area.

- **Policy PS&SE (Noise)-16.** Require that all parking for industrial and commercial uses adjacent to residential areas be enclosed within a structure or buffered by walls.

- **Policy PS&SE (Noise)-17.** Limit the use of leaf blowers, motorized lawn mowers, parking lot sweepers, or other high-noise equipment on commercial properties if their activity will result in noise which adversely affects residential areas.

- **Policy PS&SE (Noise)-18.** Require that the hours of truck deliveries to industrial and commercial properties adjacent to residential uses be limited unless there is no feasible alternative or there are overriding transportation benefits by scheduling deliveries at another hour.

- **Policy PS&SE (Noise)-19.** Require that construction activities adjacent to residential units be limited as necessary to prevent adverse noise impacts.

- **Policy PS&SE (Noise)-20.** The Town should develop standards for acceptable nuisance noise levels for both day and night.

- **Policy PS&SE (Noise)-21.** Future industrial or commercial development in areas determined to be near noise-sensitive land uses shall be subject to an acoustical analysis to determine the potential for stationary source noise impacts to neighboring land uses.

In addition, the following proposed General Plan Update implementation measures would further reduce noise impacts:

- **Implementation Measure PS&SE (Noise)-1.** Establish exterior land use noise compatibility standards in the Zoning Ordinance for all new development based on the guidelines shown on Figure S-4 (EIR Table N-3) and Table S-3 of this Element.

- **Implementation Measure PS&SE (Noise)-2.** Incorporate in the Zoning Ordinance requirements that limit maximum interior levels to 45 dBA Ldn in all new residential construction.

- **Implementation Measure PS&SE (Noise)-3.** For new development within the generalized 65~~60~~ dBA Ldn noise contour as shown in Figure S-6 of this Element, project applicants shall fund site-specific noise studies to mitigate project impacts. The determination of whether a project site is within the 65~~60~~ dBA Ldn contour is the responsibility of the Planning Department. The required noise analysis shall:

- Include field measurements by a qualified environmental scientist/acoustical engineer to determine a more precise location of existing and projected future noise levels (based on traffic projections included in the Circulation Element or as accepted by the Town); and

- Identify and commit to measures to mitigate noise impacts (by siting of structure outside of high noise levels, insulation, attenuation, walls or buffers, landscape, or other acceptable techniques) if within the 65~~60~~ dBA contour.

- **Implementation Measure PS&SE (Noise)-4.** When development is subject to high noise levels requiring mitigation, the following measures shall be considered and preference shall be given where feasible in the following order:

    1. Site layout, including setbacks, open space separation and shielding of noise sensitive uses with non-noise-sensitive uses.
    2. Acoustical treatment of buildings.

3. Structural measures: construction of earthen berms and/or wood or concrete barriers.

- **Implementation Measure PS&SE (Noise)-5.** Incorporate into the Zoning Ordinance standards that protect inhabitants from impacts of exterior noise, prevent the transference of interior noise to the outside, prevent transference of noise between residential units and individual businesses in multi-tenant buildings, and prevent transference of noise between commercial and residential uses in mixed structures. Standards for insulation, windows, building materials, walls and roofs shall be included.

- **Implementation Measure PS&SE (Noise)-6.** Include in the Zoning Ordinance standards and requirements for parking structures and lots to prevent noise effects on-site and on adjacent noise sensitive uses. These could include the use of buffers containing landscape and/or sound walls, use of sound absorbing materials to minimize sound amplification and transmission, enclosure of the façade of parking structures facing a residence, limitation of the hours of operation of surrounding surface parking lots, and other appropriate techniques.

- **Implementation Measure PS&SE (Noise)-7.** The Town shall review development proposals according to their potential noise impacts on abutting uses and impacts by abutting uses in accordance with the standards and requirements stipulated by this Element and incorporated into the Zoning Ordinance

- **Implementation Measure PS&SE (Noise)-8.** The Town shall consider the use of temporary noise barriers, limited hours of operation, limiting times of year for construction near schools to reduce construction-related noise.

- **Implementation Measure PS&SE (Noise)-9.** The Town shall review the street layout of proposed residential subdivisions with the objective of reducing traffic volumes and through trips as a means to reduce noise levels. The use of road dips, diagonal parking, one-way streets, speed humps, and other traffic controls shall be considered to reduce vehicular travel and speed, provided that engineering and safety standards are met. If determined to be feasible, rubberized asphalt paving material may be required for new roads.

- **Implementation Measure PS&SE (Noise)-10.** Speed limits are legally set in accordance with the prevailing speed of traffic based on engineering studies. However, when feasible, consistent and necessary, the reduction of speed limits on arterials should be used to decrease ambient noise levels.

- **Implementation Measure PS&SE (Noise)-11.** The Town shall evaluate the noise impacts of truck deliveries on adjacent residential properties as a part of the development and environmental review process for all commercial and manufacturing uses. Where truck deliveries would have the potential to create noise exceeding 60 dBA CNEL at an adjacent noise sensitive use, the inclusion of noise mitigation techniques such as the use of sound wall or enclosure of delivery areas shall be required.

- **Implementation Measure PS&SE (Noise)-12.** To reduce noise associated with truck traffic, the Town should implement the following noise reduction strategies:

  1. The Town and Caltrans shall consider limitations on hours of operation and other truck operations that could be limited to reduce noise impacts.
  2. The Town should encourage the use of established designated truck routes that avoid residential areas and confine truck traffic to major thoroughfares.

3. The Town should post designated areas and times to prohibit the use of jake brakes along established truck routes adjacent to sensitive uses.

- **Implementation Measure PS&SE (Noise)-13.** Support the efforts of the California Department of Transportation and local transportation agencies in developing noise reduction measures for Interstate 80, including elevating or depressing roads, or if no feasible alternatives exist, sound barrier walls.

- **Implementation Measure PS&SE (Noise)-14.** Maintain a data file documenting existing and future noise conditions, using the contour map contained in this Plan. As noise assessments are conducted for proposed projects or other noise studies are performed, the data base shall be updated. The noise data shall be updated entirely at least once every five years.

- **Implementation Measure PS&SE (Noise)-15.** Work with railroad operators to determine when noise controls may be necessary due to the adjacency of railroad lines to residential uses.

- **Implementation Measure PS&SE (Noise)-16.** The Town shall enforce the State Noise Insulation Standards (California Code of Regulations, Title 24) and Chapter 35 of the Uniform Building Code (UBC).

- **Implementation Measure PS&SE (Noise)-17.** Future industrial or commercial development in areas determined to be near noise-sensitive land uses, as shown in Figure S-6, shall be subject to an acoustical analysis at the discretion of the Planning Director, to determine the potential for stationary source noise impacts to neighboring land uses.

- **Implementation Measure PS&SE (Noise)-18.** Where noise-sensitive land uses are proposed in areas exposed to existing or projected noise levels in excessive of the standards contained in Tables S-3 and S-4. The Town shall require an acoustical analysis as part of the environmental review process so that noise mitigation may be included in the project design. At the discretion of the Planning Director, the requirement for an acoustical analysis may be waived if all of the following conditions are satisfied:

  a. The development is for less than five single-family dwellings or less than 10,000 square feet of total gross floor area for office buildings, churches, or meeting halls;
  b. The noise source in question consists of a single roadway or railroad for which up-to-date noise exposure information is available. An acoustical analysis will be required if the noise source is a stationary noise source, or if there are multiple noise sources that could affect the project;
  c. The projected future noise exposure at the exterior of proposed buildings or outdoor activity areas does not exceed 65~~60~~ dBA Ldn;
  d. The topography of the area is essentially flat; and
  e. Effective noise mitigation, as determined by the Planning Director, is incorporated into the project design. Such measures can include, but are not limited to, the use of building setbacks, building orientation, noise barriers. If closed windows are required for compliance with interior noise level standards, air conditioning or a mechanical ventilation system will be required.

These mitigative policies would substantially address potential impacts associated with new development. However, two proposed implementation measures should be clarified. Implementation Measure PS&SE

(Noise)-11 should be modified to address vehicles in general, rather than just truck deliveries. Measure 12 should be modified to say "should" instead of "shall", because there is no mechanism to require the cooperation of Caltrans. In addition, the measure should note that designated truck routes must be followed.

Residual Impacts

Implementation of proposed policies is anticipated to mitigate impacts relating to noise to the extent possible. However, it is likely that noise increases associated with cumulative development would cause significant and unavoidable impacts, which cannot be fully mitigated to a less than significant level.

3.10 PUBLIC SERVICES (Police, Fire, Schools, Libraries and Parks)

Setting

This section analyzes impacts to police protection, fire protection, schools, libraries, and park/recreation facilities.

6.2.1 Law Enforcement

Police Protection. Law enforcement services are provided in Loomis by the Placer County Sheriff's Department. The department operates from the South Placer Substation located at Horseshoe Bar Road and Interstate 80 in Loomis. About 27 deputies are based out of the substation and are responsible for patrolling west and south Placer County. The South Placer Substation staff includes 4.25 patrol deputy, 0.5 sergeant, and 0.25 detective positions. Deputies from this substation provide 24-hour protection.

The crime rate in Loomis is relatively low, and calls for law enforcement services are usually directed at the protection of property rather than responding to emergency incidents. The Department has found that community involvement programs, such as Neighborhood Watch, are particularly effective in assisting the efforts of Sheriff's patrols.

Response times average about 3.5 minutes for priority one (more critical) calls and 6.7 minutes for priority two calls (Town of Loomis, *Heritage Park Estates Draft EIR*, 1998). The Town of Loomis tries to maintain 1 sworn officer per 800 residents, but this is not an adopted standard (Town of Loomis, *Sherwood Park Draft EIR*, 1998). Based on this, the Town would currently need about 7.5 law enforcement positions assigned to it. Current staffing levels do not meet this standard.

Fire Protection. The Loomis Fire Protection District (LFPD) serves nearly all of the Town of Loomis as established by the 1999 boundaries~~planning area~~. Small portions of the Town are served by~~Only a small portion of the planning area is outside the LFPD's service area. The~~ Penryn Fire District and South Placer Fire District ~~serve very small portions of the planning area.~~ Mutual aid and automatic aid agreements are in place with the City of Rocklin, the South Placer Fire District, the Penryn Fire Protection District, and the State of California Department of Forestry ~~The California Department of Forestry also provides fire protection services, particularly with regard to rural wildland fires.~~ These agencies and their service abilities are described below.

Loomis Fire Protection District. The Loomis Fire Protection District (LFPD) provides fire protection, fire suppression, emergency medical services, open area (wildlands) fire protection, assists appropriate agencies with site control during removal of hazardous materials. The LFPD operates out of two fire stations with a paid staff of 12 and a volunteer base of 35 positions. The headquarters station ~~operates two fire stations. Station No. 1~~ is located in downtown Loomis, at the corner of Horseshoe Bar Road and Magnolia Avenue. It houses the permanent staff, and contains one emergency medical rescue unit and three engines. The second station is not staffed except on call and is located at the corner of Horseshoe Bar and Tudsbury roads, about 2 miles from the headquarters station, and contains one rescue unit/grass fire truck and two engines. The LFPD provides response times of 5 minutes or less on 80% of all calls for service. ~~Station No. 2 is about 2 miles east of the planning area, located in a rural area at the corner of Horseshoe Bar and Tudsbury roads. The LFPD's service boundaries are much larger than the planning area. In all, the district serves about 10,000 residents, 60% of whom reside in Loomis.~~

~~In addition to fire protection services, LFPD personnel provide first response to emergency calls, emergency medical care, hazardous spill removal, and rescue assistance. Typically, the district receives~~

~~about 600 emergency calls per year, about 45% of which are for medical assistance. Only about 10% of these calls are for fires or mutual aid assistance (Placer County, *Horseshoe Bar/Penryn Community Plan EIR*, 1993). Of the remainder, about 20% are related to vehicle accidents or other citizen assistance. Other calls relate to a variety of purposes, including hazardous materials, public relations, and other citizen-oriented inquiries. False alarms comprise only about 1% of all calls.~~

~~The district maintains 12 permanent staff and about 30 volunteers. Emergency response equipment at Station No. 1 includes one rescue squad and three engines, while Station No. 2 houses a rescue unit/grass fire truck and two engines. Emergency response times typically range from 3 to 4 minutes.~~

The Insurance Service Office (ISO), a national rating service sponsored by fire insurance carriers to measure fire fighting capability to reduce structural fire losses, provides rankings of firefighting capability rates fire districts for their firefighting ability on a scale of 1-10, with 1 being best. The LFPD fire services are rated 7 in areas that do not have fire hydrants and 6 in areas served by fire hydrant. ~~The Insurance Service Office (ISO) rates fire districts for their firefighting ability on a scale of 1-10, 1 being best. The ISO rating for the LFPD is 7.~~

FFPD operating costs are financed from three property related tax sources: a general property tax of about 3 cents per $100 assessed valuation; a 1997 voter approved benefit assessment tax of $63.46 per year per parcel that can be adjusted annually based on the cost price index; and a special benefit assessment limited to non-residential developments that can occur within the District. He separate benefit assessment applies to zones created for each such new development. An impact fee is also charged on new construction to finance capital costs, buildings and equipment, required to serve newly developed property. The Town of Loomis collects the fees within the Town limits, and Placer County collects the fees outside the Town limits. The current LFPD development impact fee is $615.00 for non-residential construction less than 2,000 square feet and 31.8 cents per square foot over 2,000 square feet. The residential development impact fee is $552.00 for single-family dwellings under 2,100 square feet and 27.1 cents per square foot over 2,100 square feet. Development fees are placed into a trust account used by the District exclusively for capital improvements.

In addition to the taxes and fees noted, the Town of Loomis contracts with LFPD to provide open area fire protection during the fire season. This had been a responsibility of the State of California Department of Forestry prior to incorporation of the Town. The Town currently pays LFPD $7,000 per year for this protection effort.

All money collected helps pay the annual LFPD budget which was budgeted for 1999/2000 for expenditures of $404,592 ($342,822 emergency medical and fire services; $29,770 other activities; and $32,000 capital.)

~~In 1997, community voters approved a special tax per parcel to finance fire district operations. Currently, this special tax is $63.46 per year for single-family residences. This tax is adjusted annually based on the cost price index. Capital costs are funded through impact fees collected when a building permit is issued. For single-family dwellings smaller than 2,100 square feet, the impact fee is currently $560. Over that size, an additional fee of $0.28 per square foot is charged.~~

Penryn Fire District. The Penryn Fire District operates one fire station located on Church Street, off English Colony Way, in Penryn. The station serves about 3,200 people~~3,000 residents~~, including many businesses in Loomis. The district receives about 326~~250~~ calls per year, about 40~~42~~% of which are related to fire incidents (Placer County, *Horseshoe Bar/Penryn Community Plan EIR*, 1993). Response times range from 3 to 5 minutes. The ISO rating for the district is 6. The PFD is currently preparing to construct a second fire station near the Town of Loomis on Humphrey Road, west of Colwell Road.

South Placer Fire District. The southernmost portion of the Town is within the South Placer Fire District (SPFD). In addition to fire protection, SPFD provides a range of other community services including first response to hazardous materials calls, building inspection, public education, and emergency medical services. Approximately 65-75 percent of the service calls received by the SPFD are for emergency medical response. The remaining 25-35 percent of the calls are for firefighting or other services. The SPFD serves a 36-square-mile service area from six district stations. The SPFD maintains mutual aid agreements with the Loomis Fire Protection District and others.

Because the southern portion of the Town is rural, grassland fire hazards would be a particular concern to the SPFD. Since the district receives no assistance from the California Department of Forestry and Fire Protection (CDFFP), a substantial portion of resources are devoted to grassland fire control. Weed abatement is provided on a volunteer basis and is encouraged by SPFD through public education.

Insurance Service Office (ISO) ratings indicate the relative ability of a fire department to provide fire protection services and are used to determine fire insurance costs. The rating reflects fire suppression response time based on a schedule of ten public protection classifications. A rating of 1 is indicative of excellent firefighting capability and, therefore, the lowest insurance rating. A rating of 10 indicates poor firefighting capability and, accordingly, higher insurance risks. The SPFD maintains an ISO rating of 4 in areas with fire hydrants, and 8 in rural areas without a reliable water supply.

California Department of Forestry. The entire planning area is served by the CDF. This agency is responsible for controlling wildland fires in the unincorporated areas of the state. In Placer County, the CDF operates stations in Auburn, Lincoln, Colfax, Foresthill, Alta, and Higgins. The Auburn or Lincoln stations are most likely to serve the planning area, but all stations could respond in the event of a major wildfire.

Schools. Loomis is served primarily by two school districts: Placer Union High School District (PUHSD) and Loomis Union School District (LUSD). The PUHSD serves grade 9-12, while the LUSD serves grades K-8. The facilities and enrollments within these districts are described below. A very small portion of the Town is located at the edge of the Penryn and Rocklin school districts.

Placer Union High School District. Placer Union High School District operates several high schools within its far-reaching boundaries. Only Del Oro High School lies within the planning area, and is the only one to serve planning area residents. Its permanent capacity of 1,084 is augmented by 12 portable classrooms. The school's enrollment of about 1,400 exceeds the permanent capacity by about 29%. Table PS-1 shows the enrollment and capacity of Del Oro High School.

Loomis Union School District. There are three schools within the LUSD. Loomis Elementary School serves grades K-6, while both Franklin and Placer Elementary schools serve grades K-8. The current enrollment districtwide exceeds the permanent capacity of the facilities by about 10%. Only Loomis Elementary School has any remaining capacity, but this is offset by overenrollment at the other schools. Portable classrooms are used to house excess enrollment. With the recent introduction of the statewide Class Size Reduction Program, the demand for new facilities will increase, and the shortage of space will be exacerbated. Table PS-1 shows the current capacity and enrollment within planning area schools.

Table PS-1. Planning Area School Capacity and Enrollment

School	Capacity	Enrollment	Percent of Capacity
Loomis USD			
Franklin (K-8)	530	699	132%

Loomis (K-6)	659	567	86%
Placer (K-8)	537	624	116%
Total LUSD	*1,726*	*1,890*	*110%*
Placer UHSD			
Del Oro High (9-12)	1,084	1,400	129%
TOTAL all schools	**2,810**	**3,212**	**114%**

Sources: Mark Allgire, LUSD, April 2000; Placer Union High School District, 1999

In response to overenrollment pressures, the LUSD is currently constructing a new facility, called H. Clarke Powers Elementary School, at 3296 Humphrey Road. When completed, the K-8 facility will have a capacity of about 600. The first phase is set for completion in August 2000, and will accommodate about 220 students in grades K-4. The remaining phases are scheduled for completion within 2-5 years. Even with a fully operational elementary school, the LUSD expects that overenrollment will remain a long-term concern (Allgire, LUSD, personal communication). As of April 2000, there are athletic fields in place on the site that function as joint use recreational facilities between the LUSD and the Town.

Penryn School District. Although a small portion of the Town (near Angelo Court) lies within the PSD, the only school within the district is Penryn School, a K-8 facility located on English Colony Way in Penryn, about 3 miles northeast of Loomis. The current capacity is 360, and enrollment is about the same.

Rocklin School District. About 5 to 10 parcels along Del Mar Avenue are located in the Rocklin School District. The Town contributes very few students to the district, a condition that would not change under the General Plan Update.

Facilities Funding. Revenue for facilities construction comes from both state and local sources, including developer fees. Both the PUHSD and LUSD participate in the Office of Public School Construction 50/50 program, whereby new development contributes half of the cost of new facilities, while the remainder is supplied by the state.

A statutory fee that also contributes to funding facilities is the Stirling fee. This fee, currently $1.93 per square foot, is based on the amount of building construction proposed and is adjusted annually. The fee is split between the LUSD and PUHSD, with the two districts receiving $1.16 and $0.77, respectively. However, it has been found that reliance on such developer fees is insufficient to meet the facilities needs.

Consequently, the LUSD has implemented its Mutual Benefit School Impact Fee Agreement, which imposes the following fees on residential developments: $5,015 per single-family home; $3,023 per duplex; and $1,937 per multi-family unit. A similar agreement was initiated by the PUHSD in March 1998, with fees as follows: $3,483 per single-family home; $2,589 per duplex; and $656 per multi-family unit.

In the past, statutory limitations regarding the payment of development fees to school districts were placed on projects that did not require quasi-legislative approvals, such as zoning amendments, rezoning, general plan amendments, specific plans, and development agreements, as decided in the Mira, Hart, and Murietta State Supreme Court cases. In cases where projects required quasi-legislative approvals the Courts allowed local agencies to collect additional fees as mitigation measures under CEQA.

However, the November 1998 passage of Proposition 1A, and the funding made available through its passage, requires the implementation of Senate Bill 50 (SB 50), and eliminates the additional funding allowed per the Mira, Hart and Murietta cases. Instead, SB 50 provides for Level Two and Level Three fees in residential development; these fees are allowed to be in excess of the previous limitation of $1.93 per square foot. Level Two fees require the developer to provide one-half of the costs of housing students in new schools, while the state would provide the other half. Level Three fees would require the developer to pay the full cost of housing the Students in new schools and would be implemented at the time the funds available from Proposition 1A are expended. School districts must demonstrate to the state their long-term facilities needs and costs based on long-term population growth in order to qualify for this source of funding. Once qualified, the district may impose fees as calculated per SB 50.

There are two sets of requirements that a district must meet in order to levy Level Two/Three fees. The first set consists of (1) being eligible for state funding of new construction and (2) making "a timely application to the State Allocation Board for new construction funding." The first establishes that the district has inadequate capacity to accommodate its enrollment. The second is intended to ensure that the district participates in the State program in addition to seeking supplemental mitigation from developers.

The local school districts are currently pursuing funding through these mechanisms. In its response to the NOP for this EIR, the LUSD indicated support for the recent Town Council action taken enabling the school district to require developers to enter into a mutual benefit agreement to help provide funding for local school facilities. But since the recent legislation no longer allows school districts to require this financing mechanisms, the LUSD is seeking assistance and cooperation from the Town to pursue other financing mechanisms, if possible.

Libraries. The Auburn-Placer County Library provides service to the region and operates several branches throughout the County. The Loomis Branch Library is the only one within the planning area, and is located at 6050 Library Drive in Loomis. According to the Library Long-Range Plan, this branch may undergo a reduction in operating hours. However, a future expansion of the Loomis Library may occur according to the Plan, though no timetable has been established. Other nearby branches that could serve area residents are located in Penryn, Rocklin, Auburn, and Granite Bay.

Parks and Recreation Facilities. The Town of Loomis owns and operates one park site, in Sunrise Loomis. The Town also contributes funds to the Loomis Unified School District to provide recreational improvements to their facilities. Although schools limit the use of their facilities, they represent a significant source for meeting recreational needs for Loomis residents. Placer County operates the Loomis Basin Regional Park on the northeast border of the Town which are regularly used by Loomis residents. In addition, Sierra Community College has recreational facilities available for limited use by non-students. Bikeways, hiking and equestrian trails also provide recreational opportunities for residents. Figure 4-1 in the Technical Background Report for the General Plan Update identifies the locations of all park and recreation facilities in Loomis. An inventory of park and recreational facilities in and nearby Loomis that are frequented by Town residents is provided in Table PS-2.

Table PS-2. Park and Recreational Facilities Accessible to the Town of Loomis

Facility	Amenities	Acreage	Location
Parks:			
Sunrise-Loomis Neighborhood Park	2 softball fields; 1 tot lot; picnic area; open space	4.0	North Planning Area on Arcadia Avenue, between Humphrey and Swetzer Roads
Loomis Basin Regional Park (Placer County)	2 softball fields; 1 soccer field; 1 tot lot; picnic area; snack bar; portable restrooms, basketball court	33.0	Intersection of King and Winters Roads
Schools Facilities:			
Loomis Elementary School	2 softball fields; 2 volleyball courts; 3 basketball courts; track field; tot lot	3.5	Intersection of Taylor and King Roads
H. Clarke Powers School	2 ball fields/soccer fields	6.5	Humphrey Road
Franklin Elementary School	3 ball diamonds; 1 soccer field; 2 basketball courts; 1 tract field; 2 volleyball courts; 1 tot lot	4.2	Laird Road
Del Oro High School	1 softball field; 2 soccer fields; 1 football fields; track field; pool; 4 basketball courts; 5 tennis courts; 2 hardball courts	25.0 (approx.)	Taylor Road
Sierra Community College	track fields; trails	not known	Intersection of Rocklin Road and Sierra College Blvd.
Total Acreage		**76.2**	

Source: Town of Loomis Park and Recreation Master Plan.

The parks and recreation needs assessment prepared and adopted by the Town indicated that the appropriate parks standard to apply to Loomis is five acres of park area per 1,000 population. Existing park and recreation facilities are generally located in the north area of town (above I-80). Therefore, the needs assessment identified future recreation needs based on the town population and demographics as a whole, and on the two major north/south planning areas. The results of the needs assessment indicate a current (1998) park land need for the north planning area of 21 acres, and a future (2005) need of 28 acres. The south planning area, which does not currently have any existing park facilities, is projected to need 9 acres of parkland by the year 2005. Park needs are further defined as needing approximately 7.9 acres of active park land and 30 acres of passive/open space acreage. The parks and recreation land and facility needs represent minimum, versus maximum needs. In addition, the Town does not currently have a multi-use community center available to provide recreation opportunities, group meeting facilities. At present, the Memorial Hall in the downtown area serves this function.

Bikeways and trails are another means to meet the recreational needs of Town residents. The Town of Loomis has designated several bikeways and trails within the community, which are also part of the Placer County Bikeway System and Trails Master Plan. Currently, one bikeway has been developed in Loomis along King Road, and portions of Taylor Road. The County has designated four additional bikeways within Loomis, which remain unimproved.

As noted above, Antelope Creek and Secret Ravine provide opportunities for open space corridors potentially providing hiking and equestrian trails. The creeks provide connections between the north and south areas of town, and to areas south of Loomis. The County has designated Secret Ravine as a Class 1 bicycle corridor in the regional bicycle transportation plan. The corridor is planned to extend from Loomis Basin Regional Park, west to the City of Roseville. This bikeway has not yet been improved. Secret Ravine has also been designated as an hiking and equestrian trail in the Loomis Basin Horsemen's Association Trails Master Plan and in other County planning documents. While no bikeways or trails have been designated along Antelope Creek, it is an important open space resource providing flood protection and significant riparian habitat value, and is also used as an informal hiking trail.

Impacts and Mitigation Measures

Significance Thresholds. A significant impact to public services would occur if future development would overtax the capacity for local law enforcement, schools, and fire protection, and recreational facilitiesto serve such development. Impacts would also be significant if new development would impeded the ability to provide such services.

Key Issues. The following key issue related to the provision of public services were identified during the preparation of the General Plan Update. These are the basis for determining potential impacts with respect to future development under the General Plan.

- *The Town's 1997 park and recreation needs assessment indicates a need for additional park and recreation facilities and services. These include new parks, ball fields, playgrounds, courts, and bike paths and trails.*

- *The resident survey prepared for the General Plan update highlighted the need for a community center.*

Potential Impacts. Based on the key issue identified above, the following are considered potentially significant impacts of development under the General Plan Update:

- Increased demand for various public services, including police, fire, education and library services; and
- Increased demand for recreational facilities.

Police Protection. Growth that could be accommodated under the General Plan Update would increase demand for police protection services. Potential buildout could accommodate a population increase of about 10,500~~10,400~~, a 72~~70~~% over the current population of 6,100. Current staffing assigns the equivalent of five sworn officers to the Loomis area. This is currently less than what would be required based on the unofficial ratio of 1 officer per 800 population, about 7.5 officers. At buildout, there would be the need for 13 sworn officer positions, 8 more than current staffing levels. It is anticipated that funding will be made available as development occurs, allowing for an incremental increase in staffing as the need arises. Because development would be limited to areas that are currently served, future response

times are likely to be adequate, provided that recommended traffic-related mitigation measures are implemented.

Fire Protection. Growth under the General Plan Update would result in increased demand for fire protection services. Although there are currently no adopted manpower standards for the Town, it is anticipated that new development would require additional personnel and equipment to maintain the current level of service. Other issues of concern include the need to provide adequate water pressure and availability to effectively fight fires. Impacts are potentially significant. Because development would be limited to areas that are currently served, future response times are likely to be adequate, provided that recommended traffic-related mitigation measures are implemented.

Schools. New development that would be accommodated under the General Plan Update would increase enrollment at the already overenrolled Loomis USD and Placer UHSD Based on standard student generation rates used in the districts, about 1,149~~1,128~~ new students would be generated upon buildout of the General Plan Update. Table PS-3 shows the projected enrollment in the districts, which would collectively exceed capacity by more than 54%. Assuming that no additional schools are built, enrollment will continue to exceed overall capacity. H. Clarke Powers Elementary School is currently under construction, and would accommodate 600 students, grade K-8. Even with this new school, long-term classroom shortages are likely to occur.

Table PS-3. Projected Enrollment at Buildout

Facility	Current Enrollment	Anticipated Increase *	Projected Enrollment At Buildout	Current Capacity
Loomis USD	1,890	762~~748~~	2,574~~2,560~~	1,726
Placer UHSD	1,400	387~~380~~	1,787~~1,780~~	1,084
TOTAL	**3,290**	**1,149~~1,128~~**	**4,361~~4,340~~**	**2,810**

* Based on 0.459 students per household (K-8) and 0.233 students per household (9-12), per Placer County Office of Education. Does not include H. Clarke Powers Elementary School, currently under construction. It would increase capacity by 600 students, grades K-8.

Library Service. Buildout under the General Plan Update would increase demand for library services within the Town. The existing facility is adequate to meet current demands, which would call for a 3,050-square foot building based on a typical planning ratio of 0.5 square feet of library per capita. With a projected buildout population estimated at 10,500~~10,400~~, library facilities should be about 5,200 square feet to adequately handle demand. However, the nature of library services is changing, in part because of the proliferation of electronically available data through the Internet, a resource that does not depend on a central physical repository for information. Consequently, current service standards may become obsolete by the time buildout under the General Plan Update occurs.

Parks and Recreation. Based on the 1998 park needs assessment conducted for the community, a standard of five acres per 1,000 population was established for active parks. Neighborhood park needs were based on a 3 acres per 1,000 population standard, while community parks were based on 2 acres per 1,000 population. Based on existing population, about 30.5 acres of active parkland (18.3 acres of neighborhood parks and 12.2 acres of community parks) should be available. Including school facilities, there are about 76.2 acres available for all types of park uses (Table PS-2), though very few neighborhood parks, and none south of Interstate 80.

Full buildout under the General Plan Update would increase demand for parks and recreational facilities in the Town. Based on the referenced standards, park demand at buildout would be for 52 acres of active

parks (31.2 acres of neighborhood parks and 20.8 acres of community parks). Current park acreage is adequate to meet this overall demand, but there would still be substantial shortages of neighborhood-scale facilities, especially in the area south of Interstate 80.

Proposed Policies That Mitigate Potential Impacts. The following General Plan Update policies are intended to address impacts related to the provision of public facilities.

- **Policy LUE (Parks and Recreation) 1.** The Town will pursue all available funding mechanisms to provide a multi-use community center.

- **Policy LUE (Parks and Recreation) 2.** The Town will work toward providing additional park and recreation facilities to meet the needs of Loomis residents as the Town's population increases.

- **Policy LUE (Parks and Recreation) 3.** Loomis shall adopt town park and recreational standards to guide and promote the development of recreational open space, in addition to working with Placer County in the provision of public recreation facilities.

- **Policy LUE (Parks and Recreation) 4.** New residential developments shall provide for the recreational open space needs of their residents.

- **Policy LUE (Parks and Recreation) 5.** Loomis shall encourage the compatible recreational use of riparian and stream corridors, where feasible.

- **Policy LUE (Parks and Recreation) 6.** Loomis shall support and cooperate with volunteer groups and organizations that provide recreational activities for Town residents.

- **Policy LUE (Parks and Recreation) 7.** Open space areas shall be designed as part of an integrated citywide network, in conjunction with bicycle, pedestrian and equestrian trails.

- **Policy LUE (Parks and Recreation) 8.** Loomis will continue to work with local school districts and the County to extend the park and recreation opportunities of Loomis residents through joint-use facilities.

- **Policy PS (Public Services) 1.** Loomis will work toward achieving and maintaining acceptable levels of municipal services, including public safety, roadway maintenance, and administrative services. Loomis will cooperate with regional public service agencies to attain adequate service levels for water distribution, sewerage services, flood management, and solid waste collection.

- **Policy PS (Public Services) 2.** Non-residential and higher density residential development shall not be expanded into areas lacking public services infrastructure until existing vacant land with these services within the Town limits is utilized, or proposed development ensures the extension of necessary infrastructure through actual construction or payment of fees.

- **Policy PS (Public Services) 3.** Loomis shall work with the school districts (Placer Union High School District and Loomis Union School District) in reviewing district land use decisions involving the provision of adequate educational facilities for Loomis students.

- **Policy PS (Public Services) 4.** Proposed development shall be connected to public water supply and sewage disposal systems as follows:
  a. Any dwelling unit proposed within 300 feet of existing community water supply or sewage disposal service shall be connected to that service prior to occupancy, except where the Town Manager determines that connection is infeasible because of elevation differences or insufficient line capacity. The 300-foot distance shall be measured from the property line of the subject parcel that is nearest to the existing water supply or sewage disposal service.
  b. All development proposed in nonresidential land use designations shall be connected to the community water supply and sewage disposal systems prior to occupancy.
  c. Residential subdivisions proposing parcels of 2.2 acres or less shall be connected to the community water supply and sewage disposal systems prior to occupancy.

- **Policy PS (Public Services) 5.** Loomis shall work with the solid waste collector (Auburn Placer Disposal Service) in developing a recycling program for Loomis residents.

- **Policy CIRC (Circulation) 1.** The Town shall aggressively pursue state and federal funding to implement the primary elements of the Town's Circulation Plan.

- **Policy CIRC (Circulation) 2.** The Town shall require proposed new development projects to analyze their contribution to increased vehicle, pedestrian, and bicycle traffic and to implement the roadway improvements necessary to address their impact.

- **Policy CIRC (Circulation) 3.** The Town shall assess fees on new development sufficient to cover the fair share portion of development's cumulative impacts on the local and regional transportation system.

In addition, the following implementation measures provide further mitigation for potential impacts:

- **Implementation Measure LUE (Parks and Recreation) 1.** The Town will evaluate and consider the following financing options to procure park land and recreational facilities, and a multi-use community center. These options are described in detail in the Town of Loomis Parks and Recreation Master Plan, Chapter VI, Financial Plan.)

- **Implementation Measure LUE (Parks and Recreation) 2.** The Town will evaluate the existing park land and recreation in-lieu impact fee program and recommend revisions if determined appropriate.

- **Implementation Measure LUE (Parks and Recreation) 3.** The Town will evaluate the existing park land and recreation use fee schedule to determine if amendments to the current program are necessary.

Residual Impacts

Implementation of these policies and measures would ensure the provision of public services as the Town builds out under the General Plan Update. No additional measures would be required.

3.11 TRANSPORTATION and CIRCULATION

Setting

The Circulation Element of General Plan provides a comprehensive description of existing conditions in the community, as does the Technical Background Report for the General Plan. The most important aspects of this information are summarized below.

Roadways Operations. Automobiles are the primary form of transportation for most types of trips in Loomis, although the Town's bikeway system has become increasingly important as an alternative. The Town's circulation system is described in detail in the Draft Circulation Element. Interstate 80 is the only freeway in the Town, serving as the principal regional highway. Traffic flow is generally good, but degrades during peak traffic periods. Other important roads serving the community are described below:

- *Taylor Road* - is a major arterial from Eureka Road in Roseville paralleling Interstate 80 (I-80) through Rocklin, Loomis, Penryn, and Newcastle, and terminating at State Route 193 (SR 193) near Auburn. Taylor Road has one lane in each direction within Loomis.

- *Horseshoe Bar Road* - is an east-west arterial from Taylor Road to Folsom Lake in unincorporated Placer County. Horseshoe Bar Road has one lane in each direction.

- *King Road* - is an east-west arterial from Del Mar Avenue across I-80 to beyond Folsom-Auburn Road. King Road has one lane in each direction.

- *Sierra College Boulevard* - is a major arterial from SR 193, south through Loomis, Rocklin, and Roseville, and into Sacramento County, where it becomes Hazel Avenue. Sierra College Boulevard has one lane in each direction from SR 193 to south of I-80, beyond the Loomis Town limit.

- *Barton Road* - is a north-south arterial from Brace Road into Granite Bay in unincorporated Placer County. Barton Road has one lane in each direction.

- *Brace Road* - is an east-west arterial from Taylor Road across I-80 to Horseshoe Bar Road. Brace Road has one lane in each direction.

- *Swetzer Road* - is a two-lane collector street from King Road to beyond the Town Limits.

Table CIRC-1 and Figure 8 display average weekday daily traffic volumes on key roadways within the Town of Loomis. Traffic counts were conducted by Fehr & Peers Associates in June, 1998 where necessary to complement the 1996 and 1997 count data from the Shadowbrook EIR and the Downtown Loomis Parking and Circulation Study. The segments of Taylor Road and Horseshoe Bar Road near the downtown area and Sierra College Boulevard near Taylor Road carry the greatest volumes of traffic (between 9,000 and 14,000 vehicles per day). Traffic volumes on King Road, Swetzer Road, Webb Street, Barton Road, Laird Road, and Brace Road range from approximately 1,000 to 5,000 vehicles per day. Table 2 summarizes the daily volume-to-capacity ratio for each roadway (based on capacities used by the City of Sacramento and Sacramento County).

Table CIRC-2 displays AM and PM peak hour turning movement volumes, lane configurations, and traffic control devices at key intersections within the Town of Loomis. Traffic counts were conducted by Fehr & Peers Associates where necessary in June, 1998 to complement the 1996 and 1997 counts from the Shadowbrook EIR and the Downtown Loomis Parking and Circulation Study. As shown, traffic

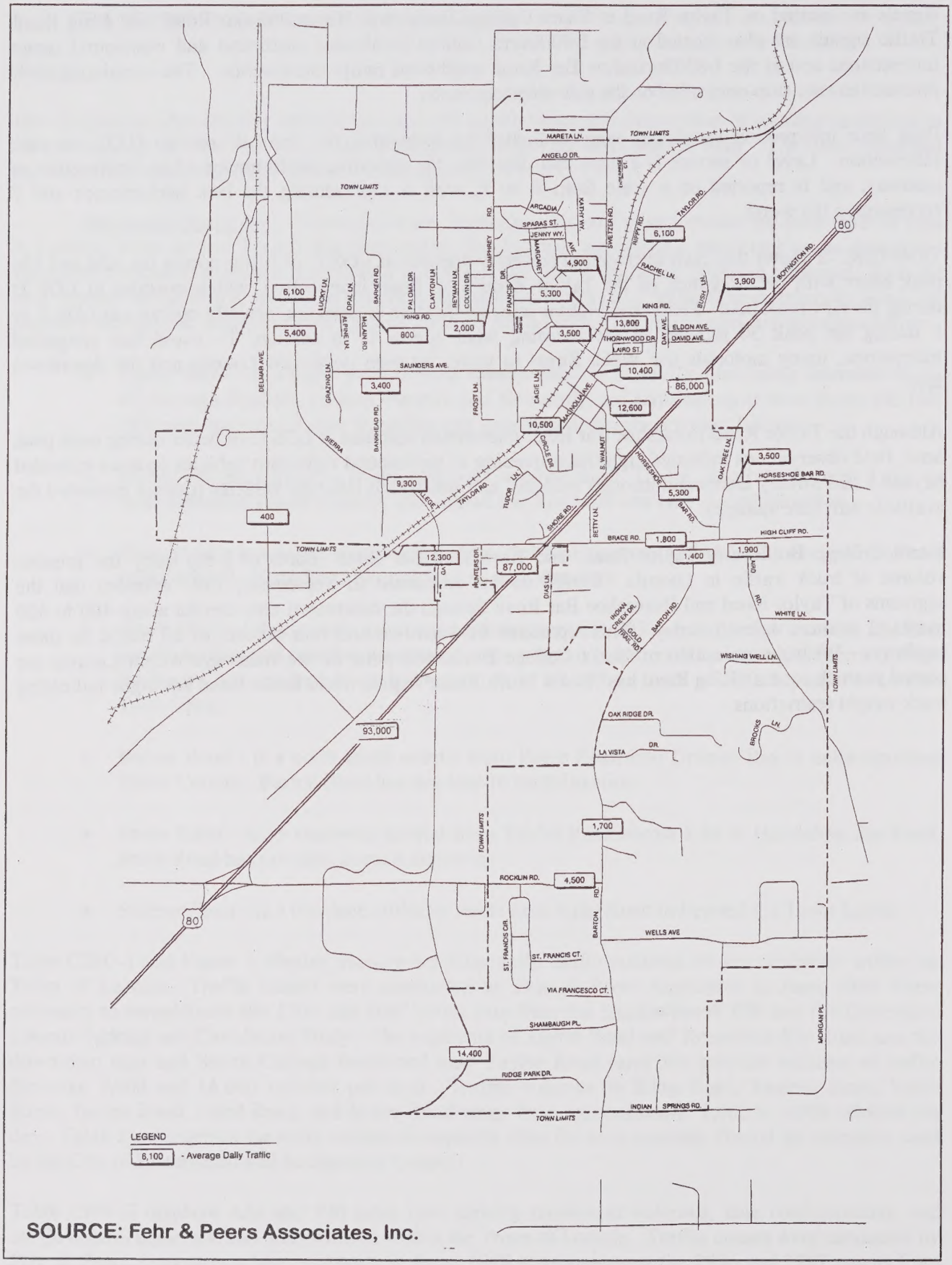
signals are located on Taylor Road at Sierra College Boulevard, Horseshoe Bar Road, and King Road. Traffic signals are also located at the I-80/Sierra College Boulevard eastbound and westbound ramps intersections and at the I-80/Horseshoe Bar Road westbound ramps intersection. The remaining study intersections are stop-controlled on the side-street approach.

Peak hour intersection operations were evaluated by computing the level of service (LOS) at each intersection. Level of service is a term that describes the operating performance of an intersection or roadway, and is reported on a scale from A to F, with A representing the best performance and F representing the worst.

Table CIRC-2 shows that each intersection currently operates at LOS C or better during the AM and PM peak hours with the exception of the Taylor Road/King Road intersection, which operates at LOS D during the AM peak hour. Field observations indicate that this intersection actually operates at LOS E or F during the peak 30 minutes in the morning when school is in session. To avoid this congested intersection, many motorists use Webb Street to travel between northwest Loomis and the downtown area.

Although the Taylor Road/Horseshoe Bar Road intersection operates at LOS C or better during each peak hour, field observations indicated significant queuing of northbound right-turn vehicles (queues extended beyond Laird Street), eastbound through vehicles, and westbound left-turn vehicles (queues exceeded the available turn lane storage).

Sierra College Boulevard, Taylor Road, and Horseshoe Bar Road (north of I-80) carry the greatest volume of truck traffic in Loomis. Traffic counts conducted in September, 1997 revealed that the segments of Taylor Road and Horseshoe Bar Road through the downtown area carried about 400 to 450 trucks (3 or more axles) per day. This represents between two and four percent of all traffic on these roadways. With the exception of Sierra College Boulevard, none of the roadways within Loomis are posted as truck routes. King Road has "Not a Truck Route" signs, while Brace Road has signs indicating truck weight restrictions.



SOURCE: Fehr & Peers Associates, Inc.

Existing (1998) Average Daily Traffic Volumes

Figure 8

Table CIRC-1. Existing Roadway Segment Operations

Roadway Segment	Number of Lanes	Average Daily Traffic	Daily Volume-to-Capacity Ratio
Sierra College Blvd. - north of King Road	2	6,100	0.27
Sierra College Blvd. - between King Road and Bankhead	2	5,400	0.24
Sierra College Blvd. - between Bankhead Road and Taylor Rd	2	9,300	0.41
Sierra College Blvd. - between Taylor and I-80 (in Rocklin)	2	12,300	0.54
Sierra College Bl. - Rocklin Rd. to Ridge Park Dr. (in Rocklin)	2	14,400	0.63
Taylor Rd. -between Sierra College Bl. and Horseshoe Bar Rd.	2	10,500	0.70
Taylor Rd. -between Horseshoe Bar Road and King Road	2	13,800	0.92
Taylor Rd. -east of King Road	2	6,100	0.41
Horseshoe Bar Rd. - between Taylor Road and Magnolia Ave.	2	10,400	0.69
Horseshoe Bar Rd. - between Magnolia Avenue and I-80	2	12,600	0.84
Horseshoe Bar Rd. - between I-80 and Brace Road	2	5,300	0.23
Horseshoe Bar Rd. - east of Oak Tree Lane	2	3,500	0.15
King Rd. - between Sierra College Blvd. and Bankhead Road	2	2,200	0.14
King Rd. - between Arcadia Avenue and Taylor Road	2	5,300	0.35
King Rd. - between Taylor Road and Boyington Road	2	3,900	0.26
Webb Street - between Saunders Avenue and Taylor Road	2	3,500	0.23
Bankhead Rd. - between Sierra College Blvd. and King Road	2	3,400	0.23
Del Mar Avenue - north of Alvis Court	2	400	0.03
Laird Road - south of High Cliff Road	2	1,900	0.08
Barton Road - south of Brace Road	2	1,400	0.06
Barton Road - north of Rocklin Road	2	1,700	0.07
Rocklin Road - west of Barton Road	2	4,500	0.20
Brace Road - west of Barton Road	2	1,800	0.08
Swetzer Road - north of King Road	2	4,900	0.21
Humphrey Road - north of King Road	2	2,000	0.09
Interstate 80 - west of Sierra College Blvd.	6	93,000	N/A
Interstate 80 - between Sierra College Blvd. And Horseshoe Bar Road	6	87,000	N/A
Interstate 80 – east of Horseshoe Bar Road	6	86,000	N/A

Table CIRC-2. Existing Peak Hour Intersection Operations

Intersection	Control	AM Peak Hour		PM Peak Hour	
		Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
Taylor Road/Oak Street	1-way Stop	< 5.0	A	< 5.0	A
Taylor Road/Walnut Street	2-way Stop	< 5.0	A	< 5.0	A
Taylor Road/Horseshoe Bar Road	Signal	21.8	C	13.8	B
Taylor Road/Webb Street	2-way Stop	< 5.0	A	< 5.0	A
Taylor Road/King Road	Signal	30.9	D	22.9	C
King Road/Webb Street	2-way Stop	< 5.0	A	< 5.0	A
King Road/Sierra College Boulevard	2-way Stop	< 5.0	A	< 5.0	A
Taylor Road/Sierra College Road	Signal	16.9	C	18.4	C
I-80 WB Ramps/Horseshoe Bar Road	Signal	15.4	C	17.5	C
I-80 EB Ramps/Horseshoe Bar Road	1-way Stop	< 5.0	A	6.8	B
I-80 WB Ramps/Sierra College Blvd.	Signal	24.3	C	22.8	C
I-80 EB Ramps/Sierra College Blvd.	Signal	12.7	B	21.7	C

The presence of the Union Pacific Railroad tracks limits access between northwest Loomis and the downtown area. At-grade crossings are currently provided at King Road, Webb Street, and Sierra College Boulevard. Union Pacific Railroad representatives and the Loomis Fire Protection District are concerned about the close spacing (about 1,000 feet) of the railroad crossings at Webb Street and King Road. Given that trains frequently exceed 1,000 feet in length, it is possible that a slow moving or stopped train could simultaneously block the Webb Street and King Road at-grade crossings. The primary connections between southeast Loomis and the downtown area (i.e., across I-80) are Horseshoe Bar Road and Brace Road. These two roads have narrow travel lanes and little or no paved shoulders, which limits travel speeds for emergency vehicles.

Bus Service. Public bus service is provided to the Loomis area by Placer County Transit. The Loomis-Penryn Shuttle interconnects Loomis, Penryn, Lincoln, and Sierra College in Rocklin. This route has stops within Loomis at Taylor Road/King Road, Flag Stop (at Stahr Liquor Store), Del Oro High School, and Raleys. Service is provided between 6:30 AM and 4:15 PM Monday through Friday with four stops per day. Loomis is also served by the Auburn-Roseville Express Shuttle, which runs from 6:00 AM to 8:00 PM Monday through Friday, and 10:00 AM to 6 PM on Saturday. This service operates with one-hour headways (the time between bus pick-ups/drop-offs).

Bicycle/Pedestrian System. The existing bicycle system consists of a series of Class I (off-street trails) and Class II (on-street lanes with guide signs and pavement marking) bike lanes on major arterials.

A Class I bike trail exists on the south side of Taylor Road between King Road and Del Oro High School. A short portion of King Road east of Bankhead Road also features a Class I bike trail. Class II bike lanes are provided on the following roadways:

- Sierra College Boulevard (both sides) between Granite Drive and Del Mar Avenue;
- Taylor Road (both sides) between Sierra College Boulevard and Oak Street;
- Taylor Road (south side) between Oak Street and Webb Street; and
- King Road between Sierra College Boulevard and I-80.

Pedestrian facilities are located sporadically throughout the Loomis area. Sidewalks are provided on sections of Sierra College Boulevard, King Road, Taylor Road, Horseshoe Bar Road, and Swetzer Road, generally in locations where development has occurred. Crosswalks are provided at the four signalized intersections in Loomis and at numerous other unsignalized locations throughout the Town.

Rail Service. Existing train traffic through Loomis uses two tracks: westbound traffic uses the tracks adjacent to Taylor Road, while eastbound traffic uses the tracks near Sierra College Boulevard. Switching improvements may eventually be made in the Loomis area so that passenger rail service will use the Taylor Road tracks for both directions of travel. The historic train station at the terminus of Horseshoe Bar Road is a possible location for future passenger service. The existing Capitol Corridor train service provides seven trains per day in each direction between Sacramento and San Jose. One train per day in each direction continues east from Sacramento with stops in Roseville, Rocklin, and Auburn. In the future, passenger rail service may be expanded to include Loomis and Newcastle. The regional California Zephyr travels between Chicago and San Jose, passing once daily in each direction through Loomis.

Existing Deficiencies. Existing deficiencies of the roadway, bicycle/pedestrian systems are identified and displayed in Table CIRC-3. A review of the transit and rail systems did not reveal any existing deficiencies.

Table CIRC-3. Existing Deficiencies

Facility	Description of Deficiency
Roadways	
Taylor Road through the downtown area	Existing traffic volumes are near the capacity of the road through the downtown area. Travel speeds through downtown are also perceived as excessive by many for pedestrian/bicycle safety.
Taylor Road east of the downtown	Poor pavement condition and narrow travel lanes and shoulders results in difficult driving conditions.
Horseshoe Bar Road between I-80 and Taylor Road	Existing traffic volumes are near the capacity of the road.
Horseshoe Bar Road south of I-80	Sharp curves and narrow travel lanes and shoulders results in difficult driving conditions.
Bankhead Road and Barton Road	Narrow travel lanes and little or no paved shoulders result in difficult driving conditions.
Intersections	
Taylor Road/Horseshoe Bar Road Intersection	Significant delays occur on three of the four approaches due to heavy traffic volumes and inefficient signal timing.
Taylor Road/King Road Intersection	Significant delays occur in the morning when school is in session. Insufficient turn lane storage contributes to delays.
Sierra College Boulevard/Brace Road Intersection	Lack of left-turn bays on Sierra College Boulevard and a traffic signal results in operational problems and safety concerns.
Bicycle/Pedestrian System	
Taylor Road through the downtown area	The striping for the Class II bicycle lane is weathered and difficult to see. The Class II bicycle lane on the north side of Taylor Road terminates at Oak Street creating a gap to King Road.
Taylor Road, Sierra College Boulevard, King Road, and Horseshoe Bar Road	Sidewalks are discontinuous throughout Taylor Road, King Road, Sierra College Boulevard, and Horseshoe Bar Road.

Impacts and Mitigation Measures

Significance Thresholds. Buildout under the proposed project would affect roadway operations and traffic patterns. Based on a combination of the *CEQA Guidelines*, the Town of Loomis General Plan and the Placer County General Plan, impacts would be significant if the project would:

- *Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system;*
- *Cause a degradation of intersections to below LOS C, the minimum level considered acceptable by the General Plan Update;*

- *Cause roadways segments to degrade to a volume-capacity ration less than 0.80, with the magnitude of degradation being at least 0.05;*
- *Impact existing circulation patterns through partial or full street closures;*
- *Restrict movement of emergency vehicles without alternative access routes;*
- *Interfere with traffic in residential neighborhoods, including bicycle or pedestrian circulation;*
- *Create secondary impacts with respect to biology, land use, or noise related to the construction of onsite access roads; or*
- *Degrade the road surface.*

Key Issues. The following key issues related to circulation were identified during the preparation of the General Plan Update. These are the basis for determining potential impacts with respect to future development under the General Plan Update.

- *Growth in traffic volumes from development within, and adjacent to, the Town will cause increased congestion and need for roadway improvements, depending upon the chosen service level standard.*

- *Many roadway improvements will be needed during the life of the General Plan and design standards are needed to ensure consistency and quality.*

- *Bicycle facilities are limited in Loomis. Provisions to increase bicycle use will provide recreational and mobility benefits to residents and reduce vehicular traffic.*

- *Transit service is limited within the Town, providing little incentive for its use and limited options for transit-dependent persons.*

- *Increased development within, and adjacent to the Town, creates possibility for traffic intrusion into residential neighborhoods.*

- *Transportation improvements are expensive and the Town has very limited financial resources.*

- *Financial constraints can lead to improper maintenance, which reduces the quality and longevity of facilities.*

Potential Impacts. Based on the key issues identified above, the following are considered potentially significant traffic impacts:

- The potential for substandard roadway and intersection operations following proposed roadway modifications at General Plan buildout;
- Increased roadway safety impacts from increased traffic, particularly in residential areas;
- The provision of alternative modes of transportation to serve the community; and
- The provision of adequate funding to implement the needed physical roadway improvements.

Proposed Roadway Modifications Under the General Plan Update. The General Plan includes several modifications to the Town's existing circulation system in order to accommodate potential growth. The following circulation changes are assumed under the proposed General Plan:

- Widen Sierra College Boulevard to 6 lanes north of I-80 (to Bankhead);

- Reconstruct the I-80/Sierra College Boulevard interchange;
- Widen I-80 from a 6-lane to an 8-lane freeway east and west of Horseshoe bar Road;
- Install bike lanes on Taylor Road from Midas Avenue (in Rocklin) to Sierra College Boulevard, and from King Road to the Loomis Town Limits; and
- Provide passenger rail service to Loomis.

Note that most of these improvements will depend on the cooperation of outside agencies, including the City of Rocklin, Caltrans, AMTRAK, and the Union Pacific Railroad. The following Town-specific roadway modifications are anticipated under the updated Circulation Element, and are intended to respond to future development or specific concerns raised during the General Plan Update preparation process:

- Swetzer Road extension (from King Road to Sierra College Boulevard);
- Boyington Road extension (freeway frontage road from King Road to Horseshoe Bar Road);
- Various functional improvements to Taylor Road in the downtown core;
- Widen Sierra College Boulevard to 4 lanes north of Bankhead;
- Widen Horseshoe Bar Road to 4 lanes, from Boyington Road extension (near I-80) to southern boundary of commercial property south of I-80; and
- Widen Rocklin Road to 4 lanes from Sierra College Boulevard to Barton Road.

With the exception of the last improvement, all are located entirely within Loomis. The widening of Rocklin Road to Sierra College Boulevard would require the cooperation of the agencies through which the roadway extends beyond the Loomis town limit.

Post-Improvement Impacts at Town Buildout. Full buildout under the General Plan Update would increase the Town's population by an estimated 70%, or about 4,300 new residents. In combination with cumulative development in the region, this represents about 155,000 new daily automobile trips to distribute on the roadway network. However, this increase in traffic is largely a result of development outside the Town, particularly in areas such as Lincoln and Rocklin. Proposed development in Lincoln, for example, would account for the vast majority of new traffic on Sierra College Boulevard north of Interstate 80. Lincoln and the County would be equal contributors, unless the County would contribute more based on the traffic patterns associated with the Bickford Ranch project.

Town-related traffic increases, in combination with cumulative increases in traffic associated with regional growth, would result in an overall increase in traffic levels throughout the Town. Most affected by general increases in traffic associated with buildout within the existing Town limits would be Sierra College Boulevard and Taylor Road, as well as Interstate 80.

Impacts Due to Regional (Cumulative) Growth. Future (2020) baseline conditions assume buildout of the 2000 General Plan Update and projected development in surrounding communities through 2020. It also assumes the following transportation improvements (as listed in the 1996 Draft Placer County Regional Transportation Plan):

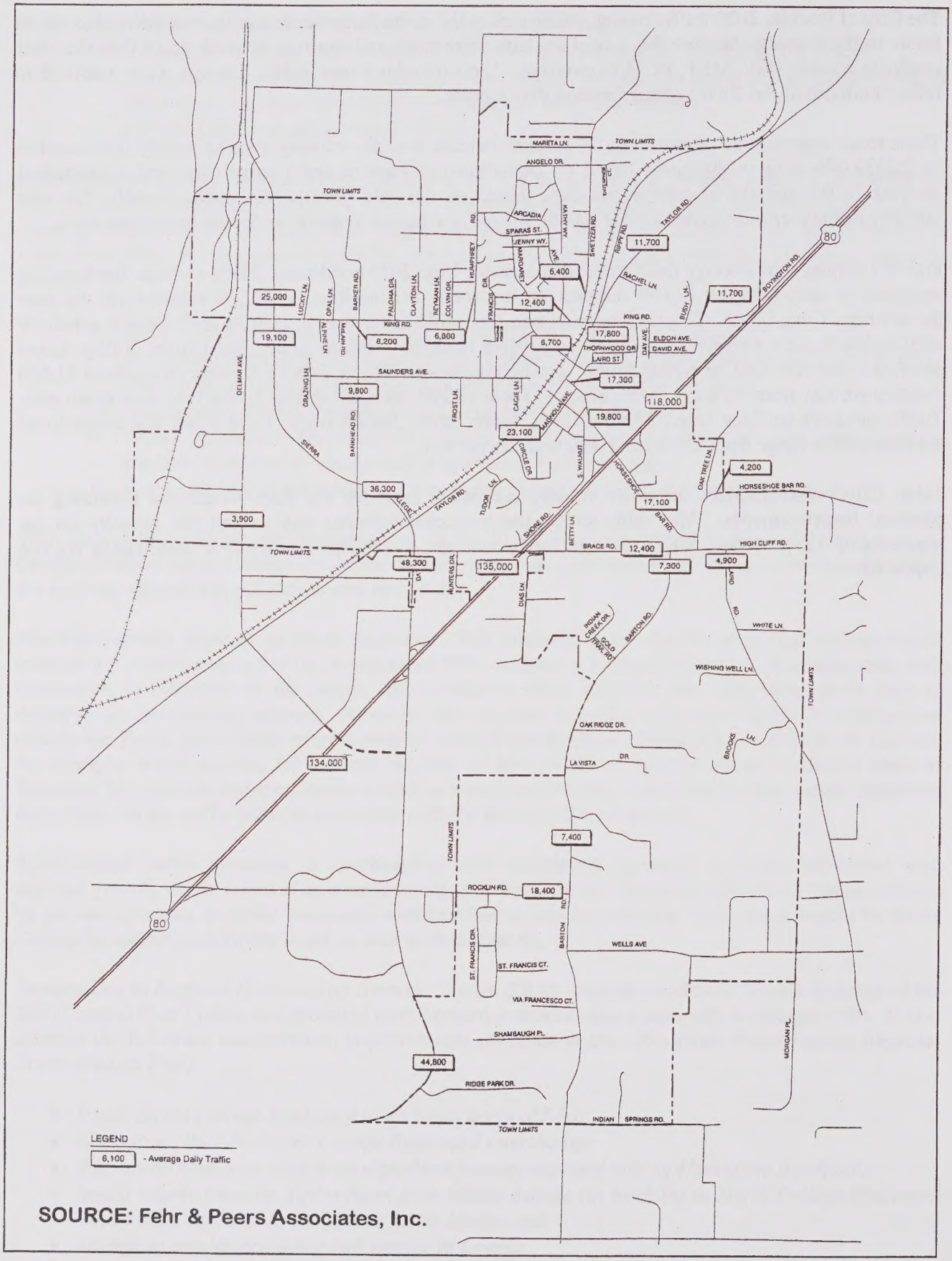
- *Widen Sierra College Boulevard to six lanes north of I-80;*
- *Reconstruct the I-80/Sierra College Boulevard interchange;*
- *Widen I-80 from a six-lane to an eight-lane freeway east and west of Horseshoe Bar Road;*
- *Install bicycle lanes on Taylor Road from Midas Avenue (in Rocklin) to Sierra College Boulevard and from King Road to the Loomis Town Limits; and*
- *Attempt to provide passenger rail service in Loomis.*

The City of Rocklin 2020 traffic model, which covers the entire Sacramento region, was utilized to obtain future traffic forecasts because this model contains more zonal and roadway network detail than the other available models (SACMET, PCTPA models). The future land uses within Loomis were modified to reflect buildout of the 2000 Loomis General Plan Update.

These totals represent an approximate 70 percent increase over the existing housing supply (estimated to be 2,2532~~,275~~ units in 2000~~1996~~ based on Department of Finance and Census data) and a substantial increase in the amount of commercial uses (based on the base year (1992) traffic model). The vast majority of the increase in commercial square footage is expected to occur within the downtown area.

Figure 9 displays the average daily travel demands for Year 2020 conditions. Sierra College Boulevard is projected to carry between 17,100 vehicles per day south of King Road to 40,500 vehicles per day near the southern Town limits. This is an approximate three-fold increase over existing traffic that is primarily attributable to new developments, such as Twelve Bridges, Whitney Oaks, and Clover Valley Lakes planned in the surrounding communities. Traffic volumes on Taylor Road will range from about 11,500 vehicles per day near the north Town limits to about 18,200 vehicles per day through the downtown area. Traffic volumes on King Road, Swetzer Road, Webb Street, Barton Road, Laird Road, and Brace Road are expected to range from 2,500 to 11,400 vehicles per day.

Table CIRC-4 summarizes the daily volume-to-capacity ratio for the major roadways **assuming no physical improvements**. This table shows that projected volumes will exceed the capacity on the segments of Taylor Road, Sierra College Boulevard, and Horseshoe Bar Road if these roads are not improved.



SOURCE: Fehr & Peers Associates, Inc.

Future (2020) Average Daily Traffic Volumes

Figure 9

Table CIRC-4.
Future Roadway Segment Operations at Cumulative Buildout (before improvements)

Roadway Segment	Existing Conditions		Future Conditon[2]	
	ADT	Daily V/C Ratio[1]	ADT	Daily V/C Ratio[1]
Sierra College Blvd. - north of King Road	6,100	0.27	25,000	1.09
Sierra College Blvd. - between King Road and Bankhead Road	5,400	0.24	19,100	0.83
Sierra College Blvd. - between Bankhead Road and Taylor Road	9,300	0.41	36,300	1.59
Sierra College Blvd. - between Taylor Road and I-80 (within the City of Rocklin)	12,300	0.54	48,300	2.11
Sierra College Blvd. - between Rocklin Rd. and Ridge Park Dr. (within the City of Rocklin)	14,400	0.63	44,800	1.96
Taylor Rd. - between Sierra College Blvd. and Horseshoe Bar	10,500	0.70	23,100	1.54
Taylor Rd. - between Horseshoe Bar Road and King Road	13,800	0.92	17,800	1.19
Taylor Rd. - east of King Road	6,100	0.41	11,700	0.78
Horseshoe Bar Rd. - between Taylor Road and Magnolia Ave.	10,400	0.69	17,300	1.15
Horseshoe Bar Rd. - between Magnolia Avenue and I-80	12,600	0.84	19,800	1.32
Horseshoe Bar Rd. - between I-80 and Brace Road	5,300	0.23	17,100	0.75
Horseshoe Bar Rd. - east of Oak Tree Lane	3,500	0.15	4,200	0.18
King Rd. - between Sierra College Blvd. and Bankhead Road	800	0.05	8,200	0.55
King Rd. - between Arcadia Avenue and Taylor Road	5,300	0.35	12,400	0.83
King Rd. - between Taylor Road and Boyington Road	3,900	0.26	11,700	0.78
Webb Street - between Saunders Avenue and Taylor Road	3,500	0.23	6,700	0.45
Bankhead Rd. - between Sierra College Blvd. and King Road	3,400	0.23	9,800	0.65
Del Mar Avenue - north of Alvis Court	400	0.03	3,900	0.26
Laird Road - south of High Cliff Road	1,900	0.08	4,900	0.21
Barton Road - south of Brace Road	1,400	0.06	7,300	0.49
Barton Road - north of Rocklin Road	1,700	0.07	7,400	0.49
Rocklin Road - west of Barton Road	4,500	0.20	18,400	0.80
Brace Road - west of Barton Road	1,800	0.08	12,400	0.54
Swetzer Road - north of King Road	4,900	0.33	6,400	0.43
Humphrey Road - north of King Road	2,000	0.13	6,800	0.45

Notes: [1] *V/C Ratio = Volume-to-Capacity Ratio;*
[2] *Assumes no physical improvements within the Town of Loomis.*

Future Deficiencies. Future deficiencies of the roadway, bicycle/pedestrian systems are identified and displayed in Table CIRC-5 assuming no improvements are made. A review of the transit and rail systems did not reveal any future deficiencies.

Table CIRC-5
Primary Future Deficiencies (Without Any Improvements)

Facility	Description of Deficiency
Roadways	
Taylor Road, Horseshoe Bar Road, Sierra College Blvd, and Rocklin Road	Projected traffic volumes will exceed the capacity of these roadways in some or all sections.
Taylor Road (east of King) and King Road	Poor pavement condition, lack of turning lanes, and narrow travel lanes/shoulders will result in difficult driving conditions with increases in traffic volumes.
Horseshoe Bar Road south of Taylor Road	The lack of turning lanes and sidewalks will become more problematic with increases in traffic volumes.
Bankhead Road, Brace Road, Barton Road	Narrow travel lanes and little or no paved shoulders will result in difficult driving conditions with increased traffic volumes.
Intersections	
Taylor Road/Horseshoe Bar Road Intersection	Projected increases in traffic will significantly worsen operations at this intersection.
Taylor Road/King Road Intersection	Projected increases in traffic will significantly worsen operations at this intersection.
Sierra College Boulevard/Taylor Road/Union Pacific	This intersection will become extremely congested with future growth. While widening of Sierra College Boulevard will temporarily relieve the problem, a grade-separation will ultimately be needed.
Bicycle/Pedestrian System	
Bicycle Facilities In-General	Bicycle facilities are sparse throughout the Town, and increased population and popularity of bicycle travel will create the need for additional facilities.
Taylor Road through the downtown area	The striping for the Class II bicycle lane is weathered and difficult to see. The Class II bicycle lane on the north side of Taylor Road terminates at Oak Street creating a gap to King Road.
Taylor Road, Sierra College Boulevard, King Road, and Horseshoe Bar Road	Sidewalks are discontinuous throughout Taylor Road, King Road, Sierra College Boulevard, and Horseshoe Bar Road.

Post-Improvement Conditions. This section discusses transportation modifications proposed under the General Plan Update. These modifications would address existing and future deficiencies expected at cumulative buildout, and are intended to provide adequate roadway capacity. Intersection-specific improvements, either separate from or part of the roadway widenings, will need to be designed for the desired LOS C standard.

Roadway Network. Improvements to the roadway network are intended to address several future problems:

- *Insufficient capacity at several locations to support build-out of the Town and growth in the surrounding communities;*
- *Excess "through" traffic and trucks along Taylor Road through the downtown;*
- *A desire to create a more pedestrian-friendly environment in downtown; and*
- *Safety issues related to vehicular traffic.*

A focused study was conducted by the Town of Loomis in 1997 (*Downtown Loomis Parking and Circulation Study*, Fehr & Peers Associates) to address parking and circulation conditions along Taylor Road and a portion of Horseshoe Bar Road. This study evaluated several alternatives that were intended to reduce traffic congestion, improve truck circulation, enhance pedestrian/bicycle circulation and safety, and improve parking.

The 1997 downtown study used a combination of engineering analysis and public input to identify a preferred circulation system. The public input consisted of:

- *a Technical Advisory Committee that provided general guidance;*
- *extensive public opinion surveys;*
- *two public workshops; and*
- *a joint workshop of the Economic Development Commission, Planning Commission, and Town Council.*

The primary elements of the preferred circulation system from the 1997 study are as follows, and shown in detail in the proposed Circulation Element as well as the Technical Appendix of this EIR:

Swetzer Road Extension– is the construction of a two-lane roadway from Taylor Road to Sierra College Boulevard immediately north of the Union Pacific Railroad tracks. This improvement would be largely within the railroad right-of-way in an area that cannot be developed with buildings due to its proximity to the tracks. An at-grade crossing would be provided near Circle Drive if, and when, the existing at-grade crossing at Webb Street is removed as a requirement of Union Pacific or as a negotiated item.

Boyington Road Extension – is the construction of a two-lane freeway frontage road from King Road to Horseshoe Bar Road north of the Raley's Shopping Center, with a short extension to connect with Walnut Street.

Miscellaneous Core Improvements – consists of a series of localized improvements on Taylor Road that are designed to improve local circulation and parking. Some of the key elements include:

- *visual gateways on Taylor Road that all serve a traffic calming function;*
- *modifications to the Horseshoe Bar/Taylor intersection to provide an "uninterrupted" right-turn from Horseshoe Bar Road to Taylor Road;*
- *a one-way circulation system to/from the new train depot with on-street parking, bus turnout, and drop-off facility;*
- *a pedestrian/local traffic only facility adjacent to the fruit sheds (between Walnut Street and Horseshoe Bar Road);*
- *continuous bike lane on Taylor Road throughout the downtown; and*
- *new traffic signals on Taylor road at Webb Street, Walnut Avenue, and Circle Drive.*

The Technical Appendix for the EIR and the proposed Circulation Element show additional improvements anticipated to be necessary with buildout of the 2000 General Plan Update. Most of the improvements are safety and/or operational related (such as providing paved shoulders, turning lanes, or signals). However, a few facilities will need additional through lanes for capacity:

- *Sierra College Boulevard – 4 lanes north of Bankhead Road and 6 lanes south of Bankhead Road.*
- *Horseshoe Bar Road – 4 lanes from Boyington Road Extension to Brace Road.*
- *Rocklin Road – 4 lanes from Sierra College Boulevard to Barton Road.*

King Road should be improved to provide turning lanes at major cross-streets, curb, gutter, and sidewalk. The portion of Horseshoe Bar Road between Taylor Road and the Boyington Road Extension should also be improved to provide a continuous turn lane along with curb, gutter, and sidewalk. Taylor Road (east of King Road) should be improved to provide turning lanes at major cross-streets and curb, gutter, and sidewalk.

The Sierra College Boulevard interchange will need to be widened and improved, and a grade-separation will be needed at the confluence of Taylor Road, Sierra College Boulevard, and the Union Pacific Railroad.

Some widening of the Taylor Road/King Road intersection will likely be needed depending upon the enrollment and operation of the adjacent Loomis Grammar School and Del Oro High School. Brace Road, Barton Road, and Bankhead Road will all warrant upgrades that provide for standard lane widths and paved shoulders.

Several intersections will likely warrant signalization and/or turning lanes. Figure 6 within the Technical Appendix shows some of the more likely locations, but the identified locations are neither definitive nor exhaustive.

Residents have been concerned about "through" traffic on Del Mar Avenue and the incentives for additional through traffic will increase as travel times increase on Sierra College Boulevard and Taylor Road. In response, the Town should create a discontinuity on Del Mar Avenue in the form of back-to-back cul-del-sacs near the mid-point. The design should allow for continued pedestrian, bicycle, and emergency access.

Bicycle/Pedestrian Facilities. The following are the recommended bicycle facility improvements (Technical Appendix Figure 7) to complement or upgrade the existing system:

- Provide westbound on-street bike lane (Class II) on Taylor Road from King Road to Oak Street to match existing eastbound facility;

- Provide on-street (Class II) facilities on Taylor Road (from King Road to eastern Town Limits and Sierra College Boulevard to western Town Limits), Sierra College Boulevard (within entire Town Limits), Rocklin Road (within entire Town Limits); and

- Provide on-street (Class III) facilities on Bankhead Road (King to Sierra College), Saunders Avenue (Bankhead to eastern limit), South Walnut/Shore, Brace Road, and Laird Road. In most cases, these facilities will consist of paved shoulders and appropriate signage.

The sidewalks should be made continuous along Taylor Road, Sierra College Boulevard, King Road, and Horseshoe Bar Road. The policy section of the circulation element provides a description of the Town's policy regarding sidewalks on new roadways. The high traffic volumes on Sierra College Boulevard could pose a safety hazard to pedestrians crossing this roadway, an impact that could be addressed by a pedestrian overcrossing, if deemed feasible after further review.

Transit Service. Only one capital improvement is planned with respect to transit; namely, the revitalization of the rail station near Horseshoe Bar Road and Taylor Road. Improvements to the platform, station, circulation, and parking facilities are desirable. Figure 5A of the Technical Appendix shows the conceptual circulation system. While passenger rail service is not imminent, this facility will become a future "hub" of transit service (both rail and bus) in Loomis.

Proposed Policies That Mitigate Potential Impacts. The improvements listed above are part of the proposed Circulation Element, and collectively would reduce potential physical circulation impacts to a less than significant level. The Draft Circulation Element also includes the following policies intended to implement the proposed physical improvements previously described:

- **Policy CE (Level of Service)-1.** In order to minimize congestion, maintain Level of Service C on all intersections within the Town of Loomis. Exceptions to this standard are allowed when:

  1. The deficiency is substantially caused by "through" traffic, which neither begins nor ends in Loomis, and is primarily generated by non-residents; or

  2. The deficiency will be temporary (less than three years), and a fully-funded plan is in place to provide the improvements needed to remedy the substandard condition.

Notwithstanding any other General Plan policy or provisions in the vent significant impacts will result from large development on the Town's perimeter, the Town shall make every reasonable effort to have developers adequately mitigate such adverse impacts.

- **Policy CE (Roadway Improvement)-1.** Roadway improvements within the Town of Loomis shall conform to the roadway classification system and improvement standards specified in the current version of the *Town of Loomis Design & Improvement Standards.*

- **Policy CE (Bicycle Facility)-1.** The Town shall promote bicycle travel, as appropriate, and shall pursue all available sources of funding for the development and improvement of bicycle facilities.

- **Policy CE (Bicycle Facility)-2.** Bicycle facilities shall be provided in compliance with the *Placer County Bikeways Master Plan* (Placer County Transportation Commission, 1988) or subsequent amended versions of that document, as well as on other appropriate routes at the discretion of the Town Council.

- **Policy CE (Transit Service)-1.** The Town will promote and support a safe, efficient, and coordinated public transit system that meets residents' needs, reduces congestion, improves

the environment, and helps provide a viable non-automotive means of transportation in and through the Town of Loomis.

- **Policy CE (Transit Service)-2.** The Town should work with Placer County Transit and other transit providers to plan and implement public transportation services within the Town that are timely, cost-effective, and responsive to growth patterns and transit demand.

  a. Transit routes should conform to plans established by Placer County Transit, and should generally coincide with major destinations for employment and shopping, the location of major institutions, concentrations of multifamily housing, and other land uses likely to attract public transit ridership.

  b. Bus routes should follow major roads with service to residential neighborhoods via collector streets.

  c. Bus stops should be located in conformance with the applicable policies of Placer County Transit.

- **Policy CE (Transit Service)-3.** The Town should consider the transit needs of senior, disabled, minority, low-income, and transit-dependent persons in making decisions regarding transit services and in compliance with the Americans with Disabilities Act.

- **Policy CE (Transit Service)-4.** The Town should support efforts to provide demand-responsive service ("paratransit") and other transportation services for those unable to use conventional transit.

- **Policy CE (Neighborhood Environment)-1.** The Town shall create and maintain a street system which protects residential neighborhoods from unnecessary levels of traffic, while providing for logical traffic circulation.

- **Policy CE (Neighborhood Environment)-2.** The Town shall design streets and approve development applications in such a manner as to prevent and eliminate high traffic flows and parking problems within residential neighborhoods.

- **Policy CE (Neighborhood Environment)-3.** The Town shall promote the development of a circulation system that preserves the historic nature and character of neighborhoods and districts, and reinforces neighborhood identity and integrity.

- **Policy CE (Neighborhood Environment)-4.** New local streets shall be designed to promote the interconnection of residential neighborhoods while simultaneously discouraging through-traffic within residential neighborhoods.

- **Policy CE (Neighborhood Environment)-5.** The Town of Loomis shall establish and maintain a procedure through which local residents can receive assistance in managing and reducing traffic flows through their residential neighborhoods. Such assistance could be technical, the provision of equipment (such as signs) and the labor needed to install such equipment, or provision of enhanced police traffic enforcement in neighborhoods. The Town could also participate in modifying the existing street system to reduce or eliminate through traffic intrusion into residential neighborhoods. Based on the identified need and available financing, priorities will be established and an appropriate level of resources (including staff time, equipment, and physical improvements) will be committed by the Town.

- **Policy CE (Roadway System Funding)-1.** The Town shall aggressively pursue state and federal funding to implement the primary elements of the Town's Circulation Plan.

- **Policy CE (Roadway System Funding)-2.** The Town shall require proposed new development projects to analyze their contribution to increased vehicle, pedestrian, and bicycle traffic and to implement the roadway improvements necessary to address their impact.

- **Policy CE (Roadway System Funding)-3.** The Town shall assess fees on new development sufficient to cover the fair share portion of development's cumulative impacts on the local and regional transportation system.

- **Policy CE (Roadway System Funding)-4.** Prior to acceptance of new local streets by the Town, provisions shall be made for the ongoing maintenance of those facilities. Such provisions could include the establishment of a maintenance district covering the specific roadways identified, or assumption of all maintenance responsibilities by the pertinent homeowners association or other approved organization.

- **Policy CE (Roadway Maintenance)-1.** The Town shall assure that the transportation system continues to provide safe, efficient, and convenient access to its residents.

- **Policy CE (Roadway Maintenance)-2.** The Town shall provide dependable and adequate resources to maintain and repair the existing system of roads and bridges, according to priorities established within the capital improvement program.

- **Policy CE (Roadway Maintenance)-3.** The Town shall work with the Placer County Transportation Planning Agency (PCTPA) to ensure that the PCTPA's Regional Transportation Plan is coordinated with the Town's Capital Improvement Plan. This coordination will allow access to Federal and State funds, where possible, for road maintenance and improvements.

In addition to these policies, the following additional policy is recommended to address a potential pedestrian safety impact on Sierra College Boulevard:

- **Additional Policy CIRC-1.** If recommended by the Town Engineer after review, and if determined to be feasible, the Town should pursue the construction of a pedestrian bridge over Sierra College Boulevard to address safety impacts. The precise location of such a crossing would be determined after further review.

Residual Impacts

Implementation of the Draft Circulation Element policies, in combination with the specific roadway improvements contained in the Draft Circulation Element, would be expected to mitigate the traffic impacts of future development in the Town. Development of specific road improvements to mitigate the impacts of future development proposals would not be appropriate at this time. Specific improvements will need to be developed as needed in conjunction with future development plans. Table CIRC-6 shows roadway operations following proposed circulation improvements.

As noted on Table CIRC-6, proposed roadway modifications would improve road operations with cumulative buildout, most dramatically on Sierra College Boulevard. However, some Town roadways

would likely continue to experience significant congestion (> 0.80 V/C)) at buildout, most notably as shown below:

- Taylor Road (between Sierra College Boulevard and Horseshoe Bar Road),
- Horseshoe Bar Road (between Taylor and Magnolia);
- King Road (between Arcadia and Taylor); and

In addition, two other roadway segments would experience congestion greater than 0.80 V/C, even with proposed improvements:

- Sierra College Boulevard (Taylor to I-80, in Rocklin);
- Sierra College Boulevard (Rocklin Road to Ridge Park Drive, in Rocklin)

In the case of the Sierra College Boulevard segments, proposed roadway modifications would greatly improve the operation of this road as development occurs, but some congestion would nevertheless remain.

Table CIRC-6. Cumulative Roadway Segment Operations (With Improvements)

Roadway Segment	Future Conditon[2]		Future Condition w/ GP Improvements	
	ADT	Daily V/C Ratio[1]	ADT	Daily V/C Ratio[1]
Sierra College Blvd. - north of King Road	25,000	1.09	26,000	0.72
Sierra College Blvd. - between King Road and Bankhead Road	19,100	0.83	19,900	0.55
Sierra College Blvd. - between Bankhead Road and Taylor Road	36,300	1.59	35,000	0.65
Sierra College Blvd. - between Taylor Road and I-80 (within the City of Rocklin)	48,300	2.11	49,600	0.92
Sierra College Blvd. - between Rocklin Rd. and Ridge Park Dr. (within the City of Rocklin)	44,800	1.96	45,500	0.84
Taylor Rd. - between Sierra College Blvd. and Horseshoe Bar	23,100	1.54	18,400	1.23
Taylor Rd. - between Horseshoe Bar Road and King Road	17,800	1.19	12,200	0.81
Taylor Rd. - east of King Road	11,700	0.78	11,900	0.79
Horseshoe Bar Rd. - between Taylor Road and Magnolia Ave.	17,300	1.15	18,000	1.20
Horseshoe Bar Rd. - between Magnolia Avenue and I-80	19,800	1.32	21,200	0.71
Horseshoe Bar Rd. - between I-80 and Brace Road	17,100	0.75	17,800	0.59
Horseshoe Bar Rd. - east of Oak Tree Lane	4,200	0.18	4,300	0.19
King Rd. - between Sierra College Blvd. and Bankhead Road	8,200	0.55	7,700	0.51
King Rd. - between Arcadia Avenue and Taylor Road	12,400	0.83	14,400	0.96
King Rd. - between Taylor Road and Boyington Road	11,700	0.78	9,900	0.66
Webb Street - between Saunders Avenue and Taylor Road	6,700	0.45	4,000	0.26
Bankhead Rd. - between Sierra College Blvd. and King Road	9,800	0.65	9,500	0.63
Del Mar Avenue - north of Alvis Court	3,900	0.26	3,900	0.26
Laird Road - south of High Cliff Road	4,900	0.21	4,900	0.21
Barton Road - south of Brace Road	7,300	0.49	7,300	0.49
Barton Road - north of Rocklin Road	7,400	0.49	7,400	0.49
Rocklin Road - west of Barton Road	18,400	0.80	19,200	0.64
Brace Road - west of Barton Road	12,400	0.54	12,400	0.54
Swetzer Road - north of King Road	6,400	0.43	6,400	0.43
Humphrey Road - north of King Road	6,800	0.45	6,800	0.45
Interstate 80 – west of Sierra College Blvd.	134,000	N/A	134,000	N/A
Interstate 80 – between Sierra College Blvd. and Horseshoe Bar	135,000	N/A	135,000	N/A
Interstate 80 – east of Horseshoe Bar Road	118,000	N/A	118,000	N/A

Notes: [1] *V/C Ratio = Volume-to-Capacity Ratio. Significant impacts would be 0.81 V/C or greater.*
[2] *Assumes no physical improvements within the Town of Loomis.*
[3] *Interstate 80 projections are primarily a result of regional traffic, and improvement.*

Although the proposed General Plan Update does not include a standard for roadway operations, it may be concluded that the above-listed roadways would operate at experience substantial congestion, based on their volume-capacity ratios shown in Table CIRC-6. It is expected that traffic impacts along these roadways would remain significant and unavoidable, even with proposed improvements. At all other

roadways, and at area intersections, it is expected that impacts could be reduced to less than significant levels as development occurs.

3.12 UTILITIES (Solid Waste, Wastewater, Electricity and Gas)

Setting

This section discusses impacts to various utilities, with the exception of water resources. Impacts involving this resource are discussed in section *3.7 Hydrology*, which discusses flood hazards and water resources.

Solid Waste Management. The Auburn Placer Disposal Service (APDS) provides solid waste disposal for the planning area. If households elect to subscribe to the service, each is provided with a 90-gallon container for weekly collection of domestic refuse. APDS places a 180-pound weight limit for refuse within these containers. At this time, subscription to APDS is not mandatory.

APDS estimates that individual households produce about 100 pounds of solid waste per week (Town of Loomis, *Heritage Park Estates Draft EIR*, 1998). This estimate is somewhat higher than that of the Placer County Solid Waste Management Plan, which estimates about 3.5 pounds per person per day, or about 65 pounds per household per week. However, it is substantially lower than the results suggested by a recent survey in Rocklin, which indicates a per capita disposal rate of 9 pounds per day, or about 164 pounds per week per household.

Solid waste is ultimately taken to the Western Regional Sanitary Landfill (WRSL) in western Placer County at the intersection of Athens Avenue and Fiddyment Road. The landfill is managed by the Western Placer Waste Management Authority, which consists of representatives from Rocklin, Lincoln, Roseville, and Placer County. The 800-acre landfill has been operating since 1979.

A materials recovery facility (MRF) at the WRSL was opened in 1995. The facility currently has a 750-ton capacity per 8-hour shift, and processes an average of 600 tons per day (Smith, 1996). The facility is expandable to handle up to 2,000 tons per day with a 16-hour shift, with a 20% guaranteed minimum recovery rate. The MRF would eventually include a compacted residential waste tipping area and recyclables drop-off/buy back center.

Currently, recyclable materials are co-mingled with household garbage or collected in "blue bags" and transported to the MRF. In accordance with AB 939, recyclables are sorted from the refuse, and the residual is transferred to the landfill. With the introduction of the MRF, the effective lifespan of the WRSL is estimated at 75 years (Dominguez, 1997).

The Placer County Source Reduction and Recycling Element (SRRE) was approved in 1994, pursuant to the requirements of AB 939. The SRRE describes the existing waste stream, evaluates reduction and recycling alternatives, and indicates how the county will divert 50% of solid waste from its landfills and incinerators by 2000.

Wastewater. About half of the planning area is connected to wastewater collection infrastructure, a service provided by the South Placer Municipal Utility District (SPMUD). North of Interstate 80, the Town is served by sewer lines ranging from 6 to 12 inches in diameter. The primary service line is a 15-inch pipe near Taylor Road, known as the Lower Loomis Trunk Sewer. South of the freeway, the Middle Secret Ravine Trunk extends to Barton Road and a tributary pipe network serves portions of the community in this area.

The SPMUD Sewer Master Plan (1986) identifies the need for an 18-inch Middle Antelope Creek Trunk Sewer to serve future development in the western portion of the community. SPMUD would extend this trunk northward along the general alignment of Antelope Creek as growth requires. This plan would be

most easily implemented if growth occurred from south to north along this corridor, so infrastructure could be extended logically. Otherwise, development would have to pay all costs associated with the extension of sewer infrastructure.

The trunk sewer system collects wastewater from residential and commercial uses and transports it to the Roseville Regional Wastewater Treatment Plant (RRWWTP). The RRWWTP currently treats an inflow of about 13 million gallons per day (mgd), and was recently expanded to accommodate up to 18 mgd.

Electricity and Gas. The Pacific Gas and Electric Company (PG&E) supplies natural gas and electricity to homes and businesses in Loomis. These services are provided in accordance with Public Utilities Commission (PUC) rules and regulations. Some rural locations on the periphery of the community are not connected to the existing gas distribution network, and are instead on individual propane hookups. This service is currently provided by many private propane providers on an individual basis.

Impacts and Mitigation Measures

Significance Thresholds. Effects to electrical power services would be considered significant if the Town's growth demands exceeds existing or planned capacity or if substantial infrastructure improvements would be required. Effects to gas services would be considered significant if the Town's growth demands exceeded existing or planned capacity or if substantial infrastructure improvements would be required. A significant impact would occur if the Town's growth exceeds the waste hauler's existing or planned capacity to dispose of the refuse. Another significant impact would occur if the existing landfills could not adequately serve the additional refuse. Impacts on the sewer system are considered significant if sewage generated by the Town's growth will exceed the existing or planned capacity of the sewage collection or treatment system, or require extension of a trunk line with capacity to serve new development.

Key Issues. The following is the only issue raised in the proposed General Plan Update that relates to the provision of public utilities:

- *·Many non-residential and rural residential lots on the periphery of the Town use septic systems and well water. Increasing development under these conditions may degrade ground water quality.*

Potential Impacts. Based in part on the key issue described above, the following would be considered potential impacts affecting the community:

- Buildout would require expansion of existing landfill facilities;
- Buildout would require expansion of the existing wastewater treatment plant; and
- Buildout would hamper the ability of electricity and gas service providers to provide service.

Solid Waste. Based upon a rate of 100 pounds of solid waste generated per household per week (Town of Loomis, *Heritage Park Estates Draft EIR*, 1998), buildout of the General Plan Update would be expected to generate an additional 4,240 tons of solid waste annually. Buildout under the General Plan Update, in conjunction with regional buildout, could test the capacity of the existing landfill that serves the community. Ultimately, that facility will need to respond to long-term demands through its own long-term expansion plans. In the meantime, continuation of source reduction and recycling programs on new development in the Town would adequately mitigate impacts relating to solid waste disposal. (The Town was at a 42% diversion rate in 1998, and is expected to attain the required 50% diversion rate by 2000.)

Because landfill capacity is a finite resource, impacts are considered potentially significant. Proposed expansion of that facility would mitigate the potential impact as development occurs.

Wastewater. Full buildout under the proposed Land Use Element would add an estimated 1,631 residences. Based on residential wastewater generation rates typically used in the community (400 gpd per dwelling; Town of Loomis, *Heritage Park Estates EIR*, 1998), this amount of new development would generate an estimated 0.65 million gallons per day (mgd) of sewage, which is within the available capacity of 18 mgd. However, about 13.5 mgd are already being used regionwide to serve existing development, leaving about 4.5 mgd available for all future growth (Stein, personal communication, March 2000). A large portion of this remaining capacity is expected to be used by neighboring communities, including Rocklin and Roseville. Although Loomis would contribute a relatively small portion of the future demand, the projected increase would be raise the total community-wide wastewater generated from about 0.9 mgd to 1.55 mgd.

SPMUD is currently in the process of expanding its overall capacity with the new Pleasant Grove Regional Treatment Plant, just east of SR 65, which will add an another 12 mgd to the existing capacity. The expansion, which will be completed in 2002, will increase SPMUD's total capacity to about 30.5 mgd. Future development in Loomis was considered in the master plan that contemplated the expansion, so it is expected that SPMUD will have sufficiency capacity for the Town's buildout (Stein, personal communication, March 2000). Impacts are anticipated to be less than significant.

Electricity and Gas. Additional development that would be accommodated under the proposed General Plan Update would increase Townwide energy demand but would not be expected to require the development of new sources of energy or use energy in a wasteful manner. New homes and other future developments are expected to incorporate energy efficient designs, in accordance with Title 24 of the California Administrative Code. PG&E expects to be providing service to the region for the duration of the General Plan Update. No significant impacts to energy resources are anticipated.

Development that would be accommodated under the proposed General Plan Update would increase demand for electrical power and gas by about 70%, to serve a population that would increase by about 4,300. PG&E is expected to be able to provide this level of service increase, which is relatively small compared to expected regional growth. Infill development within the existing Town limit would receive electrical service from existing power lines.. No significant impacts to electrical power and gas service are anticipated.

Proposed Policies That Mitigate Potential Impacts. The following proposed General Plan policies would mitigate potential impacts related to the provision of utilities:

- **Policy PF (Public Facilities) 1.** Loomis will work toward achieving and maintaining acceptable levels of municipal services, including public safety, roadway maintenance, and administrative services. Loomis will cooperate with regional public service agencies to attain adequate service levels for water distribution, sewerage services, flood management, and solid waste collection.

- **Policy PF (Public Facilities) 2.** Non-residential and higher density residential development shall not be expanded into areas lacking public services infrastructure until existing vacant land with these services within the Town limits is utilized, or proposed development ensures the extension of necessary infrastructure through actual construction or payment of fees.

- **Policy PF (Public Facilities) 4.** Proposed development shall be connected to public water supply and sewage disposal systems as follows:

a. Any dwelling unit proposed within 300 feet of existing community water supply or sewage disposal service shall be connected to that service prior to occupancy, except where the Town Manager determines that connection is infeasible because of elevation differences or insufficient line capacity. The 300-foot distance shall be measured from the property line of the subject parcel that is nearest to the existing water supply or sewage disposal service.

b. All development proposed in nonresidential land use designations shall be connected to the community water supply and sewage disposal systems prior to occupancy.

c. Residential subdivisions proposing parcels of 2.2 acres or less shall be connected to the community water supply and sewage disposal systems prior to occupancy.

- **Policy PF (Public Facilities) 5.** Loomis shall work with the solid waste collector (Auburn Placer Disposal Service) in developing a recycling program for Loomis residents.

In addition to these policies, the following additional policies are recommended to be added to the General Plan Update:

- **Additional Policy U-1.** The Town should support source reduction and recycling efforts through the use of recycled products in all Town departments, whenever economically and technically feasible.

- **Additional Policy U-2.** If in the future adequate landfill space cannot be found to meet the Town's needs, no new development shall be approved until such time as adequate landfill space is identified.

- **Additional Policy U-3.** New construction and reconstruction/restoration shall consider energy conservation in the selection of building materials, building orientation, and landscaping.

- **Additional Policy U-4.** The Town shall identify the potential for energy conservation measures for the use of renewable energy sources and alternatives to fossil fuels.

- **Additional Policy U-5.** The Town shall actively participate in the energy conservation programs of the local, state, and federal agencies.

- **Additional Policy U-6.** The Town shall consider the use of alternative energy sources for all public facilities.

Residual Impacts

Proposed General Plan policies, in combination with suggested additional policies, would mitigate general impacts to utilities to less than significant levels. Individual projects would still need to be reviewed to determine if their impacts would be significant, particularly as regional development continues.

4.0 LONG-TERM IMPACTS

This section includes the CEQA-required discussions of growth inducing impacts, significant irreversible environmental changes, and ways in which the project may have short-term benefits to the detriment of long-term productivity. Although the primary focus of these discussions is on buildout of the Draft Land Use Element, the analysis considers the overall effects of the entire General Plan Update.

4.1 GROWTH INDUCING IMPACTS

The draft General Plan Update would accommodate up to 1,631 new residences throughout the Town. It is the specific purpose of the draft plan to accommodate orderly economic and population growth in Loomis. Consequently, plan adoption could indirectly induce both population and economic growth in the Town, although the level of growth would depend upon a variety of factors, including the local economy and associated demand for housing in the area.

All development would occur within the existing Town limits, and would not require the extension of roadways or infrastructure into areas that are not already served. As a general consideration, it does not propose development of an intensity or at locations markedly different that would be allowed under the existing General Plan (see Section 5.0, *Alternatives*). In this sense, the plan would also not be considered growth-inducing.

Loomis is located at the fringe of the areas experiencing the most rapid growth in Placer County. Neighboring Rocklin and Lincoln both envision development at a scale far greater than expected in Loomis. In fact, much of the anticipated traffic increases in Loomis can be attributed to future growth in those communities, as well as other nearby communities such as Roseville. Needed roadway improvements in Loomis to maintain acceptable levels of service, particularly on roads such as Sierra College Boulevard, could indirectly affect the timing of development along such roadways. However, the proposed General Plan Update anticipates this growth, all within the existing Town limit, and as such, it is not considered growth-inducing.

4.2 SIGNIFICANT IRREVERSIBLE CHANGES

Policies contained within the Draft General Plan Update would generally mitigate impacts associated with development that would be accommodated under the Draft Land Use Element. As envisioned in the plan, the community would retain its small town character while accommodating limited population growth and encouraging viable economic development. In a general sense, adoption of the draft plan would not be expected to significantly alter the character or environment of the Loomis Basin. In some specific instances, the character of the area could be affected by the removal or alteration of natural features, particularly the removal of oak trees, which provide much of the rural character of the area.

Buildout in accordance with the plan would, however, irreversibly increase the consumption of non-renewable resources such as oil and natural gas, primarily to accommodate new development within the Town.

4.3 SHORT-TERM USES VS. LONG-TERM PRODUCTIVITY

The Draft General Plan Update is specifically intended to provide for the planned and orderly development of the Town in order to ensure its long-term productivity. The policies contained in the plan are designed to provide for growth that will allow continued economic prosperity while preserving the overall character of Loomis. Therefore, project implementation would serve to benefit the long-term productivity and sustainability of the community.

5.0 ALTERNATIVES

As required by Section 15126(d) of the *State CEQA Guidelines*, this EIR examines a range of reasonable alternatives to the proposed project. Alternatives examined include the CEQA-required "no project" alternative (buildout under the current Land Use Element), an alternative that responds to various citizen requests and staff recommendations, and an alternative that incorporates only the staff recommendations. A fourth alternative represents a maximum development scenario, incorporating additional citizen requests not contemplated during the original stages of updating the General Plan. These are described in more detail below.

5.1 ALTERNATIVE 1 (No Project—Buildout of Existing General Plan)

This alternative would consider adopting no General Plan Update, but instead allowing buildout under the current General Plan. It would not include the new policies contained in the proposed update, but instead would rely on the existing General Plan policies.

Table ALT-1 compares the buildout characteristics of the Existing General Plan with those of the proposed General Plan Update. Note that under the existing plan, residential buildout would be similar to, but slightly less than expected under the proposed project. The existing plan envisions up to 3,769 dwelling units in the Town (supporting 10,138 residents), compared to the proposed plan, which would support up to 3,913~~3,851~~ units (a population of 10,359). The existing plan would allow about 70% more dwellings than currently exist, compared to a 73% increase under the proposed plan.

Non-residential development under the existing plan would be substantially less than under the proposed plan. Buildout under the existing plan would allow up to about 2.3 million square feet of commercial development, about 57% of the buildout allowed under the proposed plan. The differences in industrial potential are less; the existing plan would allow up to 1.9 million square feet, about 80% of what could be anticipated under the proposed plan. It should be noted that either plan has adequate non-residential acreage to support anticipated development through 2020, based on expected market absorption rates.

Table ALT-1. Comparison of Existing General Plan Buildout to the Draft General Plan Update

Land Use Type	Existing Condition	Existing Plan Buildout	Proposed Plan Buildout
Residential			
Dwelling Units	2,253	3,769	3,913~~3,851~~
Population	6,100	10,138	10,500~~10,359~~
Non-Residential (square feet)			
Commercial	300,000	2,300,000	4,100,000
Industrial	500,000	1,900,000	2,400,000
Total	**800,000**	**4,200,000**	**6,500,000**

[a] *From Department of Finance, 1999. Mobile homes are included under "single-family". Population from Crawford Multari Clark and Mohr.*

[b] *Based upon currently vacant land in the Town, at maximum holding capacity. Assumes 25% of all homes in RMH (6-10du/ac) designation would be multi-family. Comm. SF is based on 0.25 FAR; Ind. SF is based on 0.30 FAR.*

Reducing overall buildout as compared to the Draft General Plan Update would incrementally reduce the intensity of impacts in issue areas where impacts are primarily a result of population and employment growth. These include public services, utilities, transportation, and traffic-related air quality and noise.

However, the existing general plan would not include the stricter noise control policies of the proposed plan, nor would it include the many transportation improvements or environmental policies envisioned in the proposed plan. Much of the anticipated traffic (and resulting noise impacts) would arise from development outside of Loomis, and the existing plan includes inadequate mitigation for these issues, particularly traffic issues. Consequently, it can be reasonably argued that resulting impacts with respect to those issues would be slightly greater than under the proposed project, even though slightly less traffic would be generated in Loomis.

In addition, the reduction in overall population growth could incrementally reduce impacts relating to geologic processes and hazardous materials. Although project impacts could be mitigated, this alternative's potential impact in each of these areas is considered slightly lower.

The existing plan includes areas where there are land use conflicts, many of which are addressed either by the proposed plan's revised land use pattern, or policies for specific areas. Such areas would include commercial uses near the downtown area, and the future development pattern along Sierra College Boulevard. It is likely that land use impacts under the existing plan would be greater than expected under the proposed plan. For similar reasons, aesthetic impacts under the existing plan would likely be slightly greater as well.

The existing plan would allow development in the same areas as under the proposed plan. It does not include additional open space, in which sensitive resources (biological and cultural resources) could be protected. The physical impacts of development to these resources would likely be similar under this alternative. However, the existing plan does not include adequate policy direction to protect these resources, including setbacks from sensitive riparian areas. Therefore, overall impacts to these resources would be greater under the existing plan.

For similar reasons, the existing plan's impacts with respect to hydrology would be greater than under the proposed plan. Overall development patterns would be similar under the two plans, but the proposed plan includes policy language precluding development in the 100-year flood plain, as well as other measures designed to mitigate potential drainage-related impacts.

5.2 ALTERNATIVE 2 (Staff Recommendations and Citizen Requests)

During the development of the currently proposed General Plan Update land use map, several land use changes were recommended by staff, but ultimately not adopted by the General Plan Steering Committee. In most cases, these changes were recommended to address one or more environmental issue, or to minimize potential land use conflicts at a given location. In addition, various citizens requested changes for their own purposes, which were not always environmental in nature.

Collectively, these recommendations and requests form the basis of this project alternative. In summary, this alternative would include all the land use designations shown for the proposed project (see table LU-1, in section *3.8 Land Use*), but would also include the changes noted in Table ALT-2 below, which refers to areas shown in Figure 10. (These changes were originally rejected by the General Plan Steering Committee.) However, the policies included for the proposed project would be the same under this alternative.

Table ALT-2 describes these changes, with their potential to address one or more environmental or land use impacts. Changes that were originally recommended by staff are shown denoted by a map identifier shown in bold type.

Table ALT-2. Alternative Incorporating Staff Recommendations and Citizen Requests

Map Identifier	Description of Change	Discussion
F	Change the allowable residential density from 1 unit per 4.6 acres to 1 unit per acre, with specific policies	This area is located adjacent to development in Rocklin, as well as the St. Francis Woods development in Loomis, which has the same density. The change is intended to transition from the urban densities to the west in Rocklin, and the rural development along Barton Road in Loomis. With policies to ensure clustering of units along the Rocklin side, and appropriate setbacks and landscaping on the Loomis frontages, this change would reduce potential land use conflicts in the area. **Issues Mitigated:** *Land Use* **Adverse Effects:** *Increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities*
G	Change the allowable residential density from 1 unit per 4.6 acres to 1 unit per acre	This area would provide a logical transition from medium density residential (2-6 du/ac) to the east and rural densities (4.6 du/ac) to the west. **Issues Mitigated:** *Land Use* **Adverse Effects:** *Increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities*
3	Change the allowable residential density from 1 unit per 4.6 acres to 1 unit per 2.3 acres	This is a citizen request to allow a 10-acre parcel to be divided into 4 parcels. This change would constitute spot zoning, as it is completely surrounded by rural density residential uses (4.6 acres/unit). **Issues Mitigated:** *None* **Adverse Effects:** *Land Use; also increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities*
4	Change the allowable residential density from 1 unit per 4.6 acres to 1 unit per acre	This area would provide a logical transition from medium density residential (2-6 du/ac) to the east and rural densities (4.6 du/ac) to the west. Staff originally recommended this change, in conjunction with changes G (above) and 14, 18, and 21 (below). These changes would correct current land use designations that split some parcels into two designations, and would assist in the utilization of irregularly-shaped parcels. It would also provide an appropriate transition between residential densities, in conjunction with change G above. **Issues Mitigated:** *Land Use* **Adverse Effects:** *Increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities*
6	Change the allowable residential density from 1 unit per 4.6 acres to 1 unit per 2.3 acres	This is a citizen request to allow a 5-acre parcel to be divided into 2 parcels. This change would constitute spot zoning, as it is completely surrounded by rural density residential uses (4.6 acres/unit) **Issues Mitigated:** *None* **Adverse Effects:** *Land Use; also increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities*
7	Change the allowable residential density from 1 unit per 2.3 acres to 3 units per acre	This citizen request was not originally recommended by staff, because it conflicts with the core concept , which seeks to concentrate higher intensity uses near the center of town. **Issues Mitigated:** *None* **Adverse Effects:** *Land Use; also increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities*
8	Change the allowable residential density from 1 unit per 4.6 acres to smaller parcels	Staff originally recommended this change in conjunction with change F above. **Issues Mitigated:** *Land Use* **Adverse Effects:** *Increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities*
9	Density change from 2.3 ac/du to	Change is intended to allow a second unit. Staff did not recommend this, noting

Table ALT-2. Alternative Incorporating Staff Recommendations and Citizen Requests

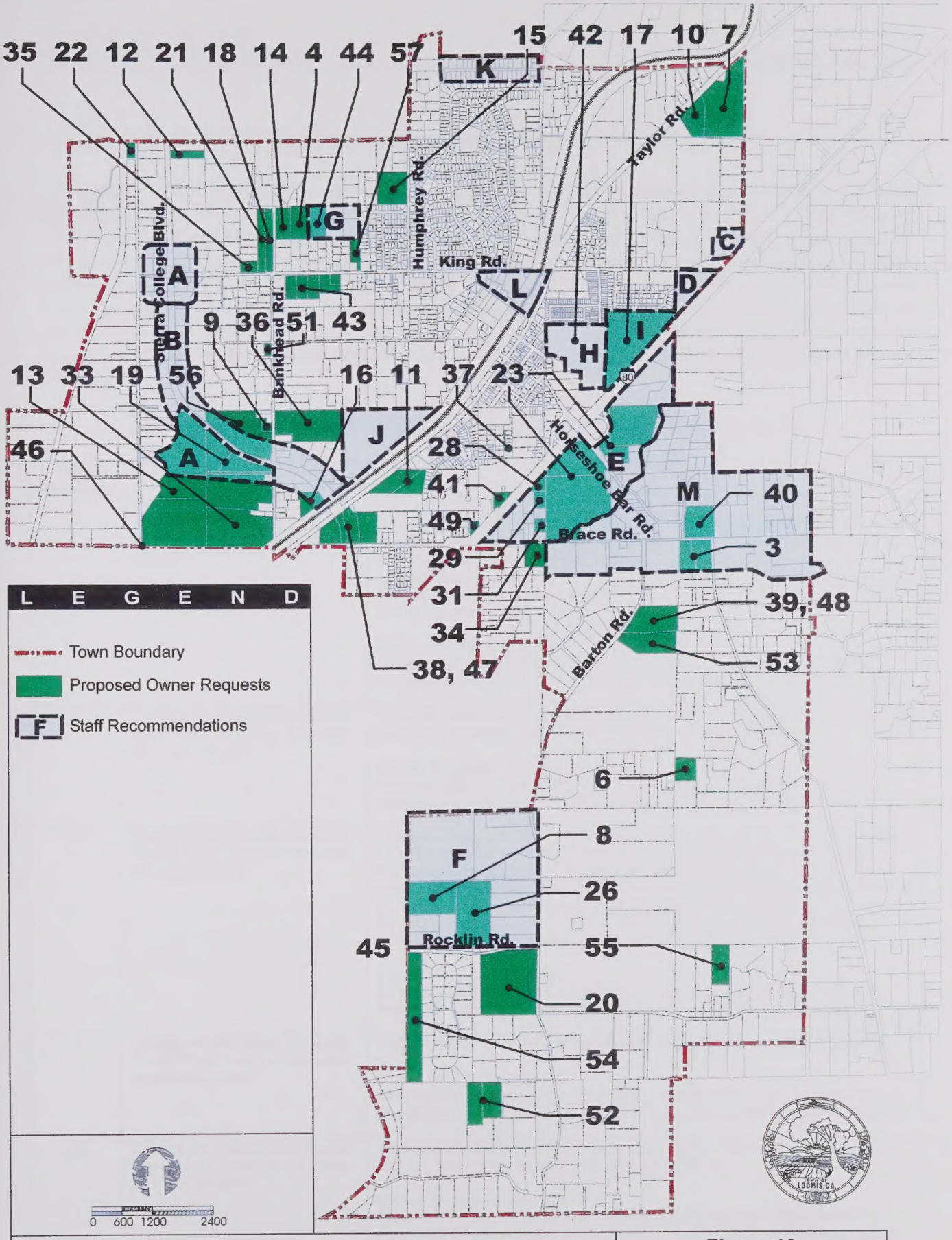
Map Identifier	Description of Change	Discussion
	0.75-acre parcels	it was more appropriately addressed through the Zoning Ordinance **Issues Mitigated:** *None* **Adverse Effects:** *Land Use, as well as issues related to population growth, including traffic, noise, air quality, public services and utilities*
10	Change from residential (2.3 ac/du) to Commercial and higher density residential	This is a citizen request that acknowledges a small existing commercial use. Staff did not recommend this because it conflicts with the core concept. **Issues Mitigated:** *None* **Adverse Effects:** *Land Use*
11	Change from residential (4.6 ac/du) to Commercial or Office	This is a citizen request that Staff did not recommend this because it conflicts with the core concept. **Issues Mitigated:** *None* **Adverse Effects:** *Land Use*
12	Change from residential (4.6 ac/du) to Commercial or Office	This is a citizen request that Staff did not recommend this because it conflicts with the core concept. **Issues Mitigated:** *None* **Adverse Effects:** *Land Use*
13	Density change from 4.6 ac/du to 2.6 units per acre	This is a citizen request that Staff did not recommend this because it conflicts with the core concept. **Issues Mitigated:** *None* **Adverse Effects:** *Land Use, as well as issues related to population growth, including traffic, noise, air quality, public services and utilities*
14	Change the allowable residential density from 1 unit per 4.6 acres to 1 unit per acre	Staff originally recommended this change, in conjunction with changes G, 4, 18 and 21. See the discussion under G and 4 above. **Issues Mitigated:** *Land Use* **Adverse Effects:** *Increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities*
15	Change the allowable residential density from 1 unit per acre to 10,000 SF lots	Staff originally recommended this change, because a new elementary school site had been acquired by the school district to the north, and that the requested density exists to the east. **Issues Mitigated:** *Land Use* **Adverse Effects:** *Increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities*
18	Change the allowable residential density from 1 unit per 4.6 acres to 1 unit per acre	Staff originally recommended this change, in conjunction with changes G, 4, 14 and 21. See the discussion under G and 4 above. **Issues Mitigated:** *Land Use* **Adverse Effects:** *Increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities*
19	Change from Residential to Commercial on the frontage, and 4 du/ac on the remainder	Staff did not recommend the increased residential density on Sierra College Boulevard because of traffic-related land use and noise concerns. Staff ultimately recommended portions of the site to be changed to Office. **Issues Mitigated:** *None* **Adverse Effects:** *Land Use, Noise*
20	Density change from 4.6 to 1 acre per unit	Although adjacent to St. Francis Woods on the west and the properties discussed in item F above, this 33-acre parcel does not offer the same potential

Table ALT-2. Alternative Incorporating Staff Recommendations and Citizen Requests

Map Identifier	Description of Change	Discussion
		to provide a rural-to-urban transition as area F. The current designation would already allow the site to be subdivided into 7 parcels. Staff did not recommend this change. **Issues Mitigated:** *None* **Adverse Effects:** *Increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities*
21	Change the allowable residential density from 1 unit per 4.6 acres to 1 unit per acre	Staff originally recommended this change, in conjunction with changes G, 4, 14 and 18. See the discussion under G and 4 above. **Issues Mitigated:** *Land Use* **Adverse Effects:** *Increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities*
22	Change the allowable residential density from 1 unit per 4.6 acres to 1 unit per acre	This is a citizen request would constitute spot zoning, as it is completely surrounded by rural density residential uses (4.6 acres/unit). **Issues Mitigated:** *None* **Adverse Effects:** *Land Use; also increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities*
32	Close one end of Del Mar Avenue	This is a citizen request to alleviate potential safety concerns arising from increased traffic from Sierra College Boulevard speeding through the neighborhood as a shortcut. Closing one end of this road could raise emergency access concerns. Staff made no recommendation during the Steering Committee hearings. **Issues Mitigated:** *Traffic-related Land Use (public safety)* **Adverse Impacts:** *Public Services (emergency response)*
33	Density change from 4.6 ac/du to 2.6 units per acre	This is a citizen request that Staff did not recommend this because it conflicts with the core concept. **Issues Mitigated:** *None* **Adverse Effects:** *Land Use, as well as issues related to population growth, including traffic, noise, air quality, public services and utilities*
34	Density change from 2.3 ac/du to 1 unit per acre	Total site area is 4.6 acres in two parcels (1.1 and 3.5 acres). A 1974 percolation test showed porosity and permeability well above County minimums. The site has high groundwater, but the two rear parcels have sufficient area for leach lines. The adjacent property floods, and the area is within the 60-65 dBA noise contour. **Issues Mitigated:** *None* **Adverse Effects:** *Public Services and Geology (groundwater issues); Hydrology and Noise*
35	Density change from1 unit per acre to 2 units per acre	Total site area is 2 acres. Possible flooding and soil concerns, which could be exacerbated by higher density. **Issues Mitigated:** *None* **Adverse Effects:** *Geology (soils); Hydrology (flooding)*
36	Density change from1 unit per 2.3 acres to 2 units per acre	Adjacent land uses are lower density than what is requested. **Issues Mitigated:** *None* **Adverse Effects:** *Land Use; as well as issues related to population growth, including traffic, noise, air quality, public services and utilities*

As shown on Table ALT-2, many of the changes proposed under this alternative would mitigate one or more impacts, particularly land use-related impacts. Some citizen requests, however, would result in adverse land use impacts (changes 6, 7, 10, 11, 12, 13, 22, and 33). In addition, many of the citizen requests are for higher density residential uses than are currently in place, which could result in increased impacts for issues related to population increases, including traffic, noise, air quality, public services and utilities. Increased densities, particularly in areas far from the core of the Town, would likely result in aesthetic impacts greater than expected under the proposed plan.

Impacts related to flooding and geologic processes may be exacerbated by certain changes (notably 34 and 35). However, because development would likely be confined to areas already designated for development, impacts to biological and cultural resources would be largely similar to what is expected under the proposed General Plan Update. Impacts related to hazardous materials would also be similar to what would be expected under the proposed plan.



Town of Loomis

Figure 10

Land Use Alternatives

5/16/01

5.3 ALTERNATIVE 3 (Staff Recommendations Only)

This alternative is similar to the previous alternative, which included a combination of staff recommendations and citizen requests that were ultimately rejected by the General Plan Steering Committee. However, this alternative includes only the changes recommended by staff, which generally coincide with the changes that would mitigate one or more potential impacts. These would be included in combination with the changes suggested under the Proposed Project (see Table LU-1 in section *3.8 Land Use* for a complete description of changes associated with the Proposed Project). The changes specific to this alternative are shown in Table ALT-3 below, which refers to areas shown in Figure 10. As with the previous alternative, the policies included for the proposed project would be the same under this alternative.

Table ALT-3. Alternative Incorporating Staff Recommendations Only

Map Identifier	Description of Change	Discussion
F	Change the allowable residential density from 1 unit per 4.6 acres to 1 unit per acre, with specific policies	This area is located adjacent to development in Rocklin, as well as the St. Francis Woods development in Loomis, which has the same density. It is a logical area to transition from the urban densities to the west in Rocklin, and the rural development along Barton Road in Loomis. With policies to ensure clustering of units along the Rocklin side, and appropriate setbacks and landscaping on the Loomis frontages, this change would reduce potential land use conflicts in the area. **Issues Mitigated:** *Land Use* **Adverse Effects:** *Increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities*
G	Change the allowable residential density from 1 unit per 4.6 acres to 1 unit per acre	This area would provide a logical transition from medium density residential (2-6 du/ac) to the east and rural densities (4.6 du/ac) to the west. **Issues Mitigated:** *Land Use* **Adverse Effects:** *Increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities*
4	Change the allowable residential density from 1 unit per 4.6 acres to 1 unit per acre	This area would provide a logical transition from medium density residential (2-6 du/ac) to the east and rural densities (4.6 du/ac) to the west. Staff originally recommended this change, in conjunction with changes G (above) and 14, 18, and 21 (below). These changes would correct current land use designations that split some parcels into two designations, and would assist in the utilization of irregularly-shaped parcels. It would also provide an appropriate transition between residential densities, in conjunction with change G above. **Issues Mitigated:** *Land Use* **Adverse Effects:** *Increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities*
8	Change the allowable residential density from 1 unit per 4.6 acres to smaller parcels	Staff originally recommended this change in conjunction with change F above. **Issues Mitigated:** *Land Use* **Adverse Effects:** *Increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities*
14	Change the allowable residential density from 1 unit per 4.6 acres to 1 unit per acre	Staff originally recommended this change, in conjunction with changes G, 4, 18 and 21. See the discussion under G and 4 above. **Issues Mitigated:** *Land Use* **Adverse Effects:** *Increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities*
15	Change the allowable residential	Staff originally recommended this change, because a new elementary school site

Table ALT-3. Alternative Incorporating Staff Recommendations Only

Map Identifier	Description of Change	Discussion
	density from 1 unit per acre to 10,000 SF lots	had been acquired by the school district to the north, and that the requested density exists to the east. **Issues Mitigated:** *Land Use* **Adverse Effects:** *Increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities*
18	Change the allowable residential density from 1 unit per 4.6 acres to 1 unit per acre	Staff originally recommended this change, in conjunction with changes G, 4, 14 and 21. See the discussion under G and 4 above. **Issues Mitigated:** *Land Use* **Adverse Effects:** *Increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities*
21	Change the allowable residential density from 1 unit per 4.6 acres to 1 unit per acre	Staff originally recommended this change, in conjunction with changes G, 4, 14 and 18. See the discussion under G and 4 above. **Issues Mitigated:** *Land Use* **Adverse Effects:** *Increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities*

As shown on Table ALT-3, all of the staff recommended changes proposed under this alternative would mitigate land use related impacts. However, each would also result in increased development intensities, which could result in increased impacts for issues related to population increases, including traffic, noise, air quality, public services and utilities. Increased densities, particularly in areas far from the core of the Town, would likely result in aesthetic impacts greater than expected under the proposed plan.

However, because development would likely be confined to areas already designated for development, impacts to biological and cultural resources would be largely similar to what is expected under the proposed General Plan Update. Impacts related to hazardous materials would also be similar to what would be expected under the proposed plan, as would impacts related to geology and hydrology.

5.4 ALTERNATIVE 4 (Maximum Development Scenario)

After the initial opportunities for citizen input, a preliminary version of the updated General Plan was developed, which formed the basis of the Proposed Project. Alternatives 2 and 3 consider other changes that were ultimately not incorporated into the proposed General Plan update.

Since that time, several other citizen requests have come forward that have not been previously considered. This alternative considers these requests. Specifically, this alternative considers a "maximum buildout" scenario, which is a combination of the changes suggested under the Proposed Project (Table LU-1), the original citizen requests and staff recommendations (Table ALT-2), and recently-suggested citizen requests not contained in Table ALT-2. These requests are listed and evaluated in Table ALT-4 below, showing their potential to address one or more environmental or land use impacts.

Table ALT-4. Alternative Recent Citizen Requests

Map Identifier	Description of Change	Discussion
37	The Town recently purchased	The purpose of the Holly Street connector is to provide for better traffic flow in

Table ALT-4. Alternative Recent Citizen Requests

Map Identifier	Description of Change	Discussion
	property to connect the two discontinuous portions of Holly Street. This is a request for this connector to not be built.	this residential area. The concern is that traffic would increase along Holly Street, which could result in adverse impacts to neighboring homes. The magnitude of increase is not expected to be substantial, as it would not provide a "shortcut" route to I-80 from Taylor Road (it would still be more convenient to use Oak, Walnut, or Horseshoe bar Road). The connector does not currently exist. Its removal would not change the existing condition. **Issues Mitigated:** *None* **Adverse Effects:** *The connector, if built, could improve local circulation, but have adverse land use impacts.*
38/47	Change the area at the southeast corner of I-80 and Sierra College Boulevard from Office to General Commercial.	This would provide a logical land use along the freeway, and would be generally consistent with adjacent commercial designations. However, it would add additional traffic to an interchange that will already experience heavy traffic volumes under the proposed General Plan. Commercial uses may cause land use conflicts with residential uses to the east, along Brace Road. **Issues Mitigated:** *None* **Adverse Effects:** *Increases traffic congestion at Sierra College/I-80 interchange; potential land use conflicts with adjacent residential uses.*
39/48	Requests setbacks between single-family dwellings and second units be increased to more than 25 feet. Would affect development Townwide	An increased setback between single family homes and second units could increase privacy for the primary residence. However, many properties are constrained by size, and this provision could remove the potential to exercise this future option, which could negatively affect property values. **Issues Mitigated:** *None* **Adverse Effects:** *Could adversely affect property rights of individuals by limiting development potential. No environmental impacts, per se*
40	Change the allowable residential density from 1 unit per 4.6 acres to 1 unit per acre at 6589 Brace Road (near Horseshoe Bar Road)	The purpose of this request is to increase development potential of a single property in an area surrounded by lower density uses. This change would constitute spot zoning, as it is completely surrounded by Residential with a 4.6-acre minimum parcel size. **Issues Mitigated:** *None* **Adverse Effects:** *Increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities. Constitutes spot zoning.*
41	Change a small property near I-80 from Residential Medium Density to Business Professional.	The purpose is to change a land use that would be difficult to maintain as residential, because of its proximity to the freeway. However, this change would constitute spot zoning, as it is completely surrounded by residential uses. **Issues Mitigated:** *None* **Adverse Effects:** *Land Use; as it may be considered spot zoning*
42 (same as Area H)	Requests the site retain its current Planned development designation (APN 043-080-044)	This request would retain the current status, so it would have no impacts per se. However, an opportunity to provide an increased concentration of commercial uses in the downtown area would be missed **Issues Mitigated:** *None; possibly less traffic and fewer land use impacts than what is contemplated under the proposed General Plan* **Adverse Effects:** *None*
43	Change the allowable residential density from 1 unit per 2.3 acres to 1 unit per acre, at two locations on King Road (APN 044-051-072 and –073)	Would be compatible with adjacent land uses, provided one intervening parcel would also be similarly redesignated. Does not address any potential impacts. **Issues Mitigated:** None **Adverse Effects:** *Increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities*
44/4A	Requests site support increased residential density, from 4.6-acre minimum to 1-acre minimum	The purpose of this request is address undersized lots that cannot be developed under the proposed designation. The request would be consistent with adjacent land use designations.

Table ALT-4. Alternative Recent Citizen Requests

Map Identifier	Description of Change	Discussion
		Issues Mitigated: *None* **Adverse Effects:** *Increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities*
45/20	Requests a large area in southwestern Loomis support increased residential density, from 4.6-acre minimum to 1 unit per ½ to ¾ acre, generally west of Barton Road	This would constitute a major increase in residential density in a relatively rural portion of Loomis. Based on the request, an estimated additional 500 to 700 dwelling units could be accommodated by this request. This would cause a substantial increase in traffic (about 5,000 to 7,000 more daily trips), and would fundamentally change the rural character of southwestern Loomis. It is inconsistent with the core concept of concentrating the density of uses near the Town's downtown core. Development would also occur in areas not served by sewer infrastructure, with poor roadway access. Substantial biological impacts could occur, related to the removal of oak trees. **Issues Mitigated:** *None* **Adverse Effects:** *Increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities. Substantial biological impacts could occur.*
46	The request is to close one end of Del Mar Avenue, with conflicting proposals on how to best accomplish this.	Citizens have petitioned to close one end of Del Mar Avenue, to increase public safety along the narrow roadway. It is currently used as a shortcut to avoid traffic on Sierra College Boulevard. The impact could reduce land use/safety impacts along the roadway, but cause increased congestion at the intersection of King Road and Sierra College Boulevard. **Issues Mitigated:** *Land Use (safety related to traffic)* **Adverse Effects:** *Traffic patterns would be altered, and access to Del mar Avenue could be adversely affected*
49	Increase development density of 4 lots of Medium Density Residential (2-6 du/ac) to R-2 zoning, near 3975 Noah Lane (APN 044-150-041)	This request does not include a land use designation change, but rather suggests a zone change that is potentially consistent with the land use designation. No adverse impacts are expected. **Issues Mitigated:** *None* **Adverse Effects:** *None*
50	This request would close Bankhead Road to through traffic	The request is non-specific by what is meant by through traffic. However, it suggests substantially significant adverse traffic impacts, as Bankhead is expected to carry 9,800 ADT at future buildout. The restriction on through traffic would undoubtedly increase the burden on Sierra College Boulevard, which is anticipated to experience heavy congestion in the future. heavily con is a citizen request that Staff did not recommend this because it conflicts with the core concept. **Issues Mitigated:** *Local land use impacts along Bankhead Road* **Adverse Effects:** *Substantial traffic impacts on adjacent roads*
51	Change the allowable residential density from 1 unit per 2.3 acres to 1 unit per acre	This request would substantially increase traffic along Bankhead Road and nearby roadways, including Sierra College Boulevard. Higher densities at this location are potentially inconsistent with the core concept, which strives to maintain lower densities as one moves away from the downtown area. **Issues Mitigated:** *None* **Adverse Effects:** *Increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities*
52/45	Requests a change from 4.6 acre residential designation to one unit per 1.3 acres. The location is in the southwestern portion of Loomis, at 5828 and 5832 Shambaugh Lane. See the discussion under request 45/20.	This is part of the larger request for higher densities in southwestern Loomis. Please refer to the discussion under request 45/20. The request is inconsistent with the core concept of concentrating the density of uses near the Town's downtown core. **Issues Mitigated:** *None* **Adverse Effects:** *Increases residential potential, affecting issues related to*

Table ALT-4. Alternative Recent Citizen Requests

Map Identifier	Description of Change	Discussion
		population growth, including traffic, noise, air quality, public services and utilities
53	Change the allowable residential density from 1 unit per 4.6 acres to 1 unit per 2.3 acres at 4353 Barton Road (APN 045-062-043 and –044)	The purpose of this request is to increase development potential in an area surrounded by lower density uses. This change would constitute spot zoning, as it is completely surrounded by Residential with a 4.6-acre minimum parcel size. **Issues Mitigated:** *None* **Adverse Effects:** *Increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities. Constitutes spot zoning.*
54	Consider less than 1 du/ac designation at 5530 Rocklin Road (APN 045-160-037	This would constitute spot zoning, and is inconsistent with surrounding designations. **Issues Mitigated:** *None* **Adverse Effects:** *Potential land use conflicts with adjacent residential uses. Constitutes spot zoning.*
55	Change from 1 unit per 4.6 ac to 1 unit per 2.3 ac for parcel on Wells Avenue (APN 045-180-032)	The purpose of this request is to increase development potential in an area surrounded by lower density uses. This change would constitute spot zoning, as it is completely surrounded by Residential with a 4.6-acre minimum parcel size. **Issues Mitigated:** *None* **Adverse Effects:** *Increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities. Constitutes spot zoning.*
56	Change from 1 unit per 2.3 acres to Commercial at Sierra College and Bankhead	This redesignation would increase traffic on Sierra College Boulevard. In addition, development of this type and intensity would be inconsistent with the core concept. Traffic and land use impacts could result. **Issues Mitigated:** *None* **Adverse Effects:** *Increases traffic congestion at Sierra College/I-80 interchange; potential land use conflicts with adjacent residential uses.*
57	Change from 1 unit per acre minimum to 1 unit per ½ acre minimum for parcel on King Road	The purpose of this request is to increase development potential in an area surrounded by lower density uses. This change would constitute spot zoning, as there is no other nearby parcel with requested designation. **Issues Mitigated:** *None* **Adverse Effects:** *Increases residential potential, affecting issues related to population growth, including traffic, noise, air quality, public services and utilities. Constitutes spot zoning.*
13/19/33	Redesignate large area near Bankhead Road and Sierra College Blvd. for higher density residential uses and commercial frontage (site 19 only)	This redesignation would substantially increase traffic in the area near the I-80/Sierra College Boulevard interchange. In addition, development of this type and intensity would be inconsistent with the core concept, and may be potentially incompatible with Residential (4.6 ac/du) to the west, near the southern portion of Del Mar Avenue. Substantial traffic and land use impacts could result. **Issues Mitigated:** *None* **Adverse Effects:** *Increases traffic congestion at Sierra College/I-80 interchange; potential land use conflicts with adjacent residential uses.*

As shown on Table ALT-4, most of the additional citizen requests would result in additional impacts, primarily related to land use or traffic. Many of the citizen requests are for higher density residential uses than are currently in place, which could result in increased impacts for issues related to population increases, including traffic, noise, air quality, public services and utilities. Increased densities, particularly in areas far from the core of the Town, would likely result in aesthetic impacts greater than

expected under the proposed plan. Increased commercial development in some cases may further contribute to traffic impacts expected under the plan.

However, most changes contemplated would not result in impacts substantially increased to what would be expected under the proposed project. Certain requests are notable exceptions. The request for increased densities in the southwestern portion of Loomis (45/20 and 52/45) could have fundamental impacts to the rural character of Loomis, and could result in substantial land use, traffic and biological impacts. Increased commercial uses near I-80 (requests 38/47 and 13/19/33) would have substantial traffic and land use impacts near the Sierra College Boulevard/I-80 interchange.

As with the other alternatives, because development would likely be confined to areas already designated for development, impacts to biological and cultural resources would be largely similar to what is expected under the proposed General Plan Update. Impacts related to hazardous materials would also be similar to what would be expected under the proposed plan.

5.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

This section evaluates the findings for proposed project and the four alternatives under consideration. It also identifies the environmentally superior alternative for each issue area, as shown on Table ALT-5. If the No Project Alternative is identified as the Environmentally Superior Alternative for a given issue area, the development scenario among the remaining alternatives that produces the fewest alternatives is noted, in accordance with CEQA. In addition, the table shows whether each alternative's environmental impact is greater, lesser, or similar to the proposed project.

No alternative is clearly superior to the proposed project, although certain alternatives have some superior aspects. Development under the existing plan (No Project, Alternative 1) would result in the least amount of future development, which makes it superior for issues related to the magnitude of population increase. Such issues include public services, utilities, and air quality. Although traffic and related noise generated under this alternative would be incrementally less, this scenario would not include many of the mitigating effects of the proposed plan. It would also result in greater land use impacts than under the proposed plan, which would specifically address many known land use conflicts in the community. Impacts related to the protection of natural resources would also be worse, because the existing plan does not include as stringent policy controls to address these issues.

Alternative 3 would include staff recommendations that would reduce land use conflicts to the maximum extent of any alternative. It is notably superior in that regard. It would also include the mitigate policies and programs included under the proposed General Plan Update. However, the slightly increased development intensity associated with some of the proposed land use changes (see Table ALT-2) would incrementally increase potential population-related impacts, including traffic, noise, air quality, public services and utilities. Issues related to the protection of natural resources, and safety/hazard issues, would be similar to what is expect4d under the proposed project. Overall, it is similarly superior to the proposed plan, and slightly preferable to the existing plan (Alternative 1).

Table ALT-5. Impact Comparison of Alternatives to Proposed Project

Issue	Proposed Project	Alt. 1 *(No Project-Existing Plan)*	Alt. 2 *(Staff and Citizen Requests)*	Alt. 3 *(Staff Recommendations Only)*	Alt. 4 *(Maximum Buildout Scenario)*
Aesthetics	=	-	-	-	-
Air Quality	=	+	-	-	-
Biology	=	-	=	=	-
Cultural Res.	=	-	=	=	=

Geology	=	+	-	=	=
Haz. Mat.	=	+	=	=	=
Hydrology	=	-	-	=	=
Land Use	=	-	+/-	+	-
Noise	=	-	-	-	-
Pub. Services	=	+	-	-	-
Transportation	=	-	-	-	-
Utilities	=	+	-	-	-
Overall	**=**	**+/-**	**-**	**+/-**	**-**

- *Greater impact than the proposed project*
+ *Less impact than the proposed project*
+/- *Characteristics both better and worse than the proposed project*
= *Similar impact to the proposed project*

Alternative 2 includes many citizen requests that could introduce impacts not anticipated under the proposed General Plan Update. It is therefore considered generally environmentally inferior to the proposed plan. Alternative 4 includes the maximum buildout scenario, which includes the positive aspects of the proposed project and Alternative 3, but introduces many citizen requests that have the effect of greatly increasing development potential. Impacts to traffic and aesthetics in particular would be substantially worse, as would land use conflicts in many areas.

Overall, the proposed project and alternative 3 are considered similarly superior, with development under the existing plan (Alternative 1) slightly environmentally worse. Alternative 4 carries by far the greatest environmental impacts.

6.0 REFERENCES and PREPARERS

6.1 REFERENCES

California Department of Fish and Game. *Special Plants List*. Natural Heritage Division, Natural Diversity Data Base. July 1999.

California Department of Fish and Game. *Endangered, Threatened, and Rare Plants of California*. 14 pgs. Natural Heritage Division, Plant Conservation Program. July 1997.

California Department of Fish and Game. *Endangered and Threatened Animals of California*. 11 pgs. Natural Heritage Division, Natural Diversity Data Base. January 1997.

California Department of Fish and Game. *Riparian and Wetland Habitats: Descriptions, Human Impacts, and Recommended Setbacks for Impact Management*. Draft report prepared by J. McCauley and J. Single, Environmental Services Division, Region 4. 1995.

California Department of Transportation. *1998 Traffic Volumes on California State Highways*. July 1999.

California EPA, Air Resources Board. *California Air Quality Data*. Annual summaries of air quality data for gaseous and particulate pollutants. 1996, 1997, 1998.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. *Classification of Wetlands and Deepwater Habitats of the United States*. Office of Biological Services, Fish and Wildlife Services, U.S. Department of the Interior.103 pgs. December 1979.

Holland, Robert F. *Preliminary Descriptions of the Terrestrial Natural Communities of California*. California Department of Fish and Game, Nongame Heritage Program. 156 pgs. October 1986.

Institute of Transportation Engineers, Washington, D.C. *Trip Generation, 5th Edition*. Updated February 1995.

Loomis, Town of. *General Plan*. 1989

Loomis, Town of. General Plan Update Technical Background Report. 1998.

Loomis, Town of. *Heritage Park Estates FEIR*, 1998. Prepared by CSW Associates.

Loomis, Town of. *Sherwood Park Draft EIR*, 1998. Prepared by Harding Lawson Associates.

Loomis, Town of. *Loomis Town Center Master Plan EIR*, 1992. Prepared by CSW Associates.

Loomis, Town of. *Shadowbrook EIR*, 1997. Prepared by ESA.

Loomis, Town of. *Final EIR for K-8 Site,* 1994. Prepared by QUAD.

Loomis, Town of. *Turtle Island EIR*, 1996. Prepared by ESA.

Transportation Research Board, National Academy of Sciences. *Interim Materials on Highway Capacity, Transportation Circular #212.* 1980.

Placer County. *Horseshoe Bar/Penryn Community Plan*, 1993. Prepared by Jones and Stokes.

Placer County. *Granite Bay Community Plan*, 1994.

Planning Concepts. *Archaeological Survey of the Proposed Town of Loomis Specific Plan Area.* 1988. Prepared by Alfred Farber.

USEPA. *Noise from Construction Equipment and Operations.* PB 206 717. December 31, 1971.

USEPA. *Compilation of Air Pollutant Emission Factors.* EPA AP-42. 1985.

United States Fish and Wildlife Service. *US Listed Flowering Plant Species Index by Lead Region and Status, as of January 31, 1997.* January 31, 1997.

6.2 PREPARERS

This EIR was prepared by Rincon Consultants, Inc. under subcontract to Crawford Multari Clark & Mohr. Persons involved in data gathering analysis, project management, and quality control include:

John Rickenbach, AICP, Project Manager
Duane Vander Pluym, D.Env., Principal
Joe Power, AICP, Senior Associate
Jennifer Kampbell, Associate
Walt Hamann, CEG, Principal
John Johnson, Graphic Designer

APPENDIX A

Notice of Preparation, Initial Study, and Responses

Notice of Preparation
of a
Draft Environmental Impact Report

The Town of Loomis will be the Lead Agency for the preparation of an Environmental Impact Report (EIR) for the update of its General Plan. We need to know the views of your agency as to the scope and content of the EIR.

Project Summary: The proposed project is an update of the Town of Loomis' General Plan, first adopted in 1987. This General Plan update responds to changes in the community since it was incorporated in 1984, and in the years since the adoption of the first General Plan. The Community Development Element addresses the community's vision for development during the planning horizon, identified as the year 2020. This element combines the state requirements for addressing land use and circulation issues within the General Plan. It includes a map of proposed urban boundaries and planned land uses (Figure 2). It also contains goals, objectives and policies that will govern the growth of the Town of Loomis and the management of its resources. The updated General Plan also includes three other elements: Public Services, Conservation of Resources, Public Health & Safety, and Housing. As allowed under state law, these five proposed elements address the seven mandated General Plan issues (Land Use, Circulation, Conservation, Open Space, Noise, Safety, and Housing).

Buildout under the updated General Plan would be the result of two factors: 1) development of vacant lands within the Town (which is the same as its existing Sphere of Influence); and 2) the redesignation of some lands within the Town to accommodate development different than what is anticipated in the previous general plan. At this time, an expansion of the Town's existing Sphere of Influence is not anticipated.

Under the proposed General Plan, the ultimate buildout population could be as much as 10,400, a 70% increase over the existing population of 6,100. About 480,000 square feet of new commercial development and 800,000 square feet of new industrial development could be accommodated under the updated General Plan. New non-residential development could accommodate up to about 2,400 new jobs.

In general, most of the Town would retain its existing land use designations. However, there would be several areas, particularly undeveloped areas, where substantial land use designation changes are contemplated. To summarize, increased residential density is contemplated at the following locations:

- *Along Bankhead Road, between Sierra College Blvd. and the Town boundary;*
- *Northwest of the intersection of Barton and Rocklin roads;*
- *Subdivision on Mareta Road (reflects existing development)*

Changes from residential to commercial designations are proposed at the following locations:

- *South side of Taylor Road, northeast of Sierra College Blvd.;*
- *Sierra College Blvd., from Taylor Road to Bankhead Road;*
- *NW corner of King Road and I80 (residential to office);*

- *North of rail line and adjacent to Swetzer Road extension (residential to business park);*
- *Various parcels totaling 117 acres between Secret Ravine and Interstate 80, at Horseshoe Bar Road (residential to tourist/destination commercial)*

The following areas would undergo modifications to existing commercial designations:

- *SE corner of Brace Road and Sierra College Blvd. (Shopping Center to Gen. Comm.);*
- *South side of King Road at I-80 (Neighborhood Comm. To General Comm.);*
- *North side of Raley's center (Planned Development to General Commercial); and*
- *South side of King Road west of Rippy (Gen. Comm. To Office Professional)*

In addition to these changes, a new Limited Industrial designation has been included in the General Plan, and the property on the east side of Swetzer Road north of King Road would be changed from Light Industry to Limited Industrial.

Environmental Issues to be Analyzed: The Draft EIR will examine the following issues: Land Use, Geology, Hazards, Hydrology, Air Quality, Transportation and Circulation, Biological Resources, Noise, Public Services and Utilities Systems, Aesthetics, Cultural Resources, and Recreation. These issues were determined to have potentially significant impacts in the Initial Study for this project.

Responses to this NOP: Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but not later than 30 days after receipt of this notice.

Please send your response no later than February 4, 2000 to Kathy Kerdus, Community Development Director, Town of Loomis, 6140 Horseshoe Bar Road, Suite K (P.O. Box 1327), Loomis, CA 95650. You can also transmit by FAX to 916/652-1847. Please provide the name of a contact person in your agency.

Project Title: Town of Loomis General Plan Update EIR

Project Applicant Town of Loomis

Date: January 5, 2000 **Signature:** _____

Kathy Kerdus, Planning Director, Town of Loomis

Telephone: 916/652-1840

TABLE OF CONTENTS

Page

Introduction
- Legal Authorities and Findings 1
- Impact Analysis and Significance Classification 1

Initial Study
- Project Title 2
- Lead Agency and Contact Person 2
- Project Applicant 2
- Project Site Characteristics 2
- Description of the Project 2
- Public Agencies Whose Approval May Be Required For Subsequent Actions 4

- Environmental Factors Affected and Determination 5

- Determination 5

- Evaluation of Environmental Impacts
  - Aesthetics 6
  - Agricultural Resources 6
  - Air Quality 7
  - Biological Resources 8
  - Cultural Resources 9
  - Geology and Soils 9
  - Hazards and Hazardous Materials 10
  - Hydrology and Water Quality 11
  - Land Use and Planning 12
  - Mineral Resources 13
  - Noise 13
  - Population and Housing 13
  - Public Services 14
  - Recreation 14
  - Transportation/Traffic 14
  - Utilities and Service Systems 15
  - Mandatory Findings of Significance 16

- References/Agencies Contacted 17

List of Figures

Figure 1 Regional Location Map 18
Figure 2 Town Boundary Map 19

INTRODUCTION

LEGAL AUTHORITY AND FINDINGS

This Initial Study (IS) has been prepared in accordance with the *CEQA Guidelines* and relevant provisions of the California Environmental Quality Act (CEQA) of 1970, as amended.

Initial Study. Section 15063(c) of the *CEQA Guidelines* defines an Initial Study as the proper preliminary method of analyzing the potential environmental consequences of a project. The purposes of an Initial Study are:

(1) To provide the Lead Agency with the necessary information to decide whether to prepare an Environmental Impact Report (EIR) or a Mitigated Negative Declaration;

(2) To enable the Lead Agency to modify a project, mitigating adverse impacts, thus avoiding the need to prepare an EIR; and

(3) To provide sufficient technical analysis of the environmental effects of a project to permit a judgment based on the record as a whole, that the environmental effects of a project have been adequately mitigated.

IMPACT ANALYSIS AND SIGNIFICANCE CLASSIFICATION

The following sections of this IS provide discussions of the possible environmental effects of the proposed project for specific issue areas that have been identified on the CEQA Initial Study Checklist. For each issue area, potential effects are isolated.

A "significant effect" is defined by Section 15382 of the *CEQA Guidelines* as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by a project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance." According to the *CEQA Guidelines*, "an economic or social change by itself shall not be considered a significant effect on the environment, but may be considered in determining whether the physical change is significant."

Following the evaluation of each environmental effect is a discussion of mitigation measures and the residual effects or level of significance remaining after the implementation of the measures. In those cases where a mitigation measure for an impact could have a significant environmental impact in another issue area, this impact is discussed as a residual effect.

INITIAL STUDY

PROJECT TITLE

Town of Loomis General Plan Update

LEAD AGENCY and CONTACT PERSON

Town of Loomis
6140 Horseshoe Bar Road, Suite K
P.O. Box 1327
Loomis, CA 95650
Contact: Kathy Kerdus, Planning Director

PROJECT APPLICANT

Town of Loomis
6140 Horseshoe Bar Road, Suite K
P.O. Box 1327
Loomis, CA 95650

PROJECT SITE CHARACTERISTICS

Location: Town of Loomis and its Sphere of Influence

Existing General Plan Designation: N/A

Existing Zoning: N/A

Surrounding Land Uses: The land uses comprise all of the urban uses designated by the Town of Loomis for the land area within the Town's corporate boundary, which is contiguous with its Sphere of Influence (Figures 1 and 2). Town land uses include a range of primarily urban types, including residential, commercial, industrial, public facilities, and open space. The Town is surrounded by open space and agriculture, primarily ranching. The Town is located between the communities of Rocklin and Penryn along Interstate 80.

DESCRIPTION OF THE PROJECT

The proposed project is an update of the Town of Loomis' General Plan, first adopted in 1987. This General Plan update responds to changes in the community since it was incorporated in 1984, and in the years since the adoption of the first General Plan. The Community Development Element addresses the community's vision for development during the planning horizon, identified as the year 2020. This element combines the state requirements for addressing land use and circulation issues within the General Plan. It includes a map of proposed urban boundaries and planned land uses. It also contains goals, objectives and policies that will govern the growth of the Town of Loomis and the management of its resources. The updated General Plan also includes three other elements: Public Services,

Conservation of Resources, Public Health & Safety, and Housing. As allowed under state law, these five proposed elements address the seven mandated General Plan issues (Land Use, Circulation, Conservation, Open Space, Noise, Safety, and Housing).

Buildout under the updated General Plan would be the result of two factors: 1) development of vacant lands within the Town; and 2) the redesignation of some lands within the Town to accommodate development different than what is anticipated in the previous general plan. At this time, an expansion of the Town's existing Sphere of Influence is not anticipated. (The Town's existing boundaries are the same as its Sphere of Influence.)

Under the proposed General Plan, the ultimate buildout population could be as much as 10,400, a 70% increase over the existing population of 6,100. About 480,000 square feet of new commercial development and 800,000 square feet of new industrial development could be accommodated under the updated General Plan. New non-residential development could accommodate up to about 2,400 new jobs.

Redesignation of Land Within the Town. In general, most of the Town would retain its existing land use designations. However, there would be several areas, particularly undeveloped areas, where substantial land use designation changes are contemplated. To summarize, **increased residential density** is contemplated at the following locations:

- *Along Bankhead Road, between Sierra College Blvd. and the Town boundary;*
- *Northwest of the intersection of Barton and Rocklin roads;*
- *Subdivision on Mareta Road (reflects existing development)*

Changes from **residential** to **commercial** designations are proposed at the following locations:

- *South side of Taylor Road, northeast of Sierra College Blvd.;*
- *Sierra College Blvd., from Taylor Road to Bankhead Road;*
- *NW corner of King Road and I-80 (residential to office);*
- *North of rail line and adjacent to Swetzer Road extension (residential to business park);*
- *Various parcels between Secret Ravine and Interstate 80 at Horseshoe Bar Road totaling 117 acres (residential to tourist/destination commercial)*

The following areas would undergo **modifications to existing commercial** designations:

- *SE corner of Brace Road and Sierra College Blvd. (Shopping Center to Gen. Comm.);*
- *South side of King Road at I-80 (Neighborhood Comm. To General Comm.);*
- *North side of Raley's center (Planned Development to General Commercial); and*
- *South side of King Road west of Rippy (Gen. Comm. To Office Professional)*

In addition to these changes, a new Limited Industrial designation has been included in the General Plan, and the property on the east side of Swetzer Road north of King Road would be changed from Light Industry to Limited Industrial.

Table 1 summarizes the proposed land uses designations by acreage. Please refer to the draft General Plan for more details.

Table 1. Summary of Proposed Land Use Designations

Land Use Designation	Acreage	Change from Existing Plan
Residential Designations:		
Residential High Density (10-15 du/ac)	1.4	-
Residential Medium Density (6-10 du/ac)	96.4	**+2.2**
Residential Medium Density (2-6 du/ac)	99.8	-10.8
Residential Medium Density (6 du/ac)	9.2	-0.3
Residential Low Density (0.5 du/ac)	32.1	**+19.7**
Residential Low Density (1 du/ac)	277.9	-20.6
Residential Estate (0.22-0.43 du/ac)	475.7	-22.6
Residential Rural Agricultural (up to 0.22 du/ac)	2,498.7	-177.6
Subtotal All Residential:	*3,698.6*	*-209.3*
Commercial Designations:		
General Commercial	191.9	**+33.9**
General Commercial – Downtown Core	39.0	**+0.4**
General Commercial – Tourist/Destination	117.4	**+117.4 (new designation)**
General Commercial – Office	28.9	**+13.3**
Subtotal All Commercial:	*377.2*	*+165.0*
Industrial Designations:		
Industrial – Business Park	35.3	-110.9
Industrial – Limited Industry	36.0	**+36.0 (new designation)**
Industrial – Light Industry	110.2	**+110.2 (new designation)**
Subtotal All Industrial:	*181.5*	*+35.3*
Public/Quasi-Public	*80.9*	*+8.9*
TOTAL	**4,338.3**	-

PUBLIC AGENCIES WHOSE APPROVAL MAY BE REQUIRED FOR SUBSEQUENT ACTIONS (e.g. permits, financing approval, or participation agreement):

- *Caltrans*
- *California Department of Fish and Game*
- *US Army Corps of Engineers*
- *US Department of Fish and Wildlife*
- *Placer County Water Agency*
- *South Placer Municipal Utility District*
- *Placer County Air Pollution Control District*

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☒ Aesthetics	☐ Agriculture Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☒ Geology / Soils
☒ Hazards & Hazardous Materials	☒ Hydrology / Water Quality	☒ Land Use / Planning
☐ Mineral Resources	☒ Noise	☒ Population / Housing
☒ Public Services	☒ Recreation	☒ Transportation/Traffic
☒ Utilities / Service Systems		

DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Kathy Kerdus
Planning Director

Date

EVALUATION OF ENVIRONMENTAL IMPACTS

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
I. AESTHETICS - Would the project:				
a) Have a substantial adverse effect on a scenic vista?	X			
b) Damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	X			
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	X			
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	X			

a-c. Loomis features a number of natural as well as manmade scenic resources such as historic resources. Within the planning area there is the historic downtown area, and many other land areas that are of high scenic value. The proposed General Plan includes goals and policies intended to conserve and preserve the Town's scenic resources. Additionally, the plan includes goals and policies that prevent incompatible and intrusive uses. The development accommodated by the General Plan could be a source of additional light and glare that could adversely affect nearby areas. These issues will be addressed in the EIR.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
II. AGRICULTURE RESOURCES - Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to nonagricultural use?			X	
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?		X		
c) Involve other changes in the existing environment which, due to their location or nature, could individually or cumulatively result in loss of Farmland, to non-agricultural use?			X	

a-c. Historically, Loomis supported an agricultural industry based on fruit growing and packing. Currently, the Town is no longer a significant commercial agricultural area. Hobby farming occurs within some residential areas. Grazing occurs on some larger parcels, and equestrian activities are common in the area. There are no prime or important soils in Loomis that require significant conservation efforts. The U.S. Soil Conservation service has characterized soil in the Loomis area in the general association of the Ahwahnee-Auberry-Sierra (AS) series. With slow infiltration rates and moderate erosion hazards, it is not considered a high quality agricultural soil. Nine parcels along Del Mar Road are currently under Williamson Act contract, but would not be affected by proposed land use designation changes. Development under the General Plan would remove some open areas currently used for grazing, and in some cases introduce development near grazing activities, resulting in potential conflicts. However, the proposed General Plan includes several policies to address this potential impact, including

- *The Town shall develop policies to protect agricultural operations on Williamson Act properties;*
- *Loomis shall allow property owners the "right-to-farm" their parcels through the protection and*

operation of agricultural land uses;

- *Equestrian activities shall be protected by considering the effect that future density and design of residential development has in enhancing or inhibiting these activities;*
- *Loomis shall use zoning designations to protect properties used for agricultural operations from encroachment by urban development.*

These policies, if implemented, would mitigate potential impacts related to agriculture at a Town-wide level to less than significant levels. Individual projects, as they are contemplated, must undergo review to determine potential agricultural impacts. The guidance provided by General Plan policies would provide direction regarding their ultimate approval or denial.

This issue will not be evaluated further in the EIR.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
III. AIR QUALITY - Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable Air Quality Attainment Plan or Congestion Management Plan?	X			
b) Violate any stationary source air quality standard or contribute to an existing or projected air quality violation?	X			
c) Result in a net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	X			
d) Create or contribute to a non-stationary source "hot spot" (primarily carbon monoxide)?	X			
e) Expose sensitive receptors to substantial pollutant concentrations?	X			
f) Create objectionable odors affecting a substantial number of people?		X		

a-f. The proposed General Plan permits a buildout potential that would increase the Town's population approximately 70% above the existing population. Resulting traffic could contribute to the degradation of air quality, including contributions of ozone and PM10, pollutants for which the Sacramento Valley Air Basin is in non-attainment. Development is subject to the provisions of the 1992 Air Quality Attainment Plan (AQAP). The AQAP includes stationary source, mobile source and indirect source control measures to reduce emissions to the extent feasible. In the EIR, buildout under the proposed General Plan will be evaluated for consistency with the AQAP. Long-term emissions will be calculated to determine the level of pollutants likely to be emitted with future development. New development is not likely to produce objectionable odors, except during short-term construction activities. However, there may be conflicts with adjacent grazing activities in some areas, which tend to emit livestock-related odors. Such impacts would likely be less than significant. Agricultural policies protecting these activities right to continue operations are included in the General Plan.

Air quality impacts associated with the General Plan buildout will be assessed in the EIR.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES - Would the project:				
a) Adversely impact, either directly or through habitat modifications, any endangered, rare, or threatened species, as listed in Title 14 of the California Code of Regulations (§670.2 or 670.5) or in Title 50, Code of Federal Regulations (§17.11 or 17.12)?	X			
b) Have a substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	X			
c) Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	X			
d) Adversely impact federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) either individually or in combination with the known or probable impacts of other activities through direct removal, filling, hydrological interruption, or other means?	X			
e) Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	X			
f) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	X			
g) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	X			

a-g. While a majority of the existing Town is developed with urban uses, some open areas are relatively undeveloped and may include sensitive plant and animal species, particularly near creeks, including Secret Ravine, Antelope Creek, and their tributaries. Substantial areas of oak woodlands are found throughout the vicinity of the Town, and some native grassland areas are located in the area. There are also areas containing wetlands. Several special-status species are located in the vicinity of Loomis, including both plants and animals. The creeks support important aquatic habitat, and support both the California red-legged frog and northwestern pond turtle. Secret Ravine is a perennial stream used by fall-run Chinook salmon. Buildout of the General Plan has the potential to affect potentially sensitive species, their habitats, and wildlife corridors. The General Plan includes policies to prevent development from encroaching upon existing environmentally sensitive and ecologically important habitat areas. The plan also includes policies that ensure the protection, preservation, and enhancement of the Town's existing sensitive areas, including riparian habitats. These issues related to biological resources will be addressed in the EIR.

There is potential for development associated with General Plan buildout in the Town limits to result in losses to heritage trees. In addition, locally designated natural communities in the Planning Area may potentially be affected by development resulting from the General Plan buildout. The EIR will discuss issues related to locally designated species and natural communities.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES - Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource which is either listed or eligible for listing on the National Register of Historic Places, the California Register of Historic Resources, or a local register of historic resources?	X			
b) Cause a substantial adverse change in the significance of a unique archaeological resources (i.e., an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it contains information needed to answer important scientific research questions, has a special and particular quality such as being the oldest or best available example of its type, or is directly associated with a scientifically recognized important prehistoric or historic event or person)?	X			
c) Disturb or destroy a unique paleontological resource or site?	X			
d) Disturb any human remains, including those interred outside of formal cemeteries?	X			
a-d. Lands throughout the Town and planning area contain a wide variety of resources that are significant to the area's local history, regional architecture, archaeology, and culture. The Native American group known as the Nisenan occupied the Loomis area. Much of the Loomis vicinity consists of land at the base of hills, or along creeks. These geophysical features are considered highly sensitive as there is a high probability that they may contain cultural resource sites. In addition, the area was a center of mining activity following the discovery of gold in the region in 1848. While only 52 prehistoric or historic sites are recorded within the planning area, much of the area has not yet been surveyed, an activity that typically takes place as development is contemplated. Historic resources related to settlement and growth exist on the lands within the planning area. Development could also impact areas used for religious or sacred purposes. Paleontological resources may be located within the area, particularly within the more resistant Mehrten formation. These issues will be addressed in the EIR.				

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS - Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?			X	
ii) Strong seismic ground shaking?	X			
iii) Seismic-related ground failure, including liquefaction?	X			
iv) Inundation by seiche, tsunami, or mudflow?				X
v) Landslides?	X			
vi) Flooding, including flooding as a result of the failure of a levee or dam?	X			
b) Would the project result in substantial soil erosion or the loss of topsoil?	X			

c) Would the project result in the loss of a unique geologic feature?			X	
d) Is the project located on strata or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	X			
e) Is the project located on expansive soil creating substantial risks to life or property?	X			
f) Where sewers are not available for the disposal of waste water, is the soil capable of supporting the use of septic tanks or alternative waste water disposal systems?	X			

a-f. The General Plan has been developed to recognize the geologic conditions in the Town and proposed Sphere of Influence. Its policies will control the density and type of development permitted in areas with identified geologic constraints. Throughout the Town and proposed Sphere of Influence, seismic and geologic hazards occur. These constraints will need to be considered when development is planned in potentially hazardous areas.

Most of the planning area is underlain by granitic rock units, with alluvium deposits near stream areas. Most soils exhibit unreliable drainage and percolation characteristics. Loomis is not a particularly seismically active region. However, an inferred fault traverses the southern portion of the planning area. However, it is not active, nor are there any known active faults in the area. There are no Alquist-Priolo Earthquake Zones within the planning area. Because there are no large lakes nearby, there is no seiche hazard in the event of an earthquake. Seismic hazards of greatest concern include groundshaking from distant earthquake events. The EIR will include a discussion of potential seismic hazards.

Flood hazards are evident within the Town, particularly along Secret Ravine and Antelope Creek. Drainage-related issues will be discussed in the EIR.

Geologic hazards that pose the greatest concern in the Town of Loomis Planning Area include liquefaction and erosion, particularly along the alluvial soils near creeks. These concerns will be discussed in the EIR.

ISSUES:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporation**	**Less Than Significant Impact**	**No Impact**
VII. HAZARDS AND HAZARDOUS MATERIALS - Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	X			
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	X			
c) Reasonably be anticipated to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	X			
d) Is the project located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	X			
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	X			
h) Expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	X			
a-h. The storage and handling of hazardous materials does occur within the planning area, and hazardous materials are transported on Interstate 80 and the Union Pacific Railroad. Consequently, there is the on-going possibility of exposure of people to potential health hazards. In addition, although buildout of the General Plan is not anticipated to create any health hazards, new development may expose people to hazards resulting from ongoing industrial and agricultural operations. The introduction of new development also has the potential to result in increased fire hazards. Finally, buildout of the General Plan may affect existing emergency response plans. Due to these issues, potential hazards will be examined in the EIR.				

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
VIII. HYDROLOGY AND WATER QUALITY - Would the project:				
a) Violate Regional Water Quality Control Board water quality standards or waste discharge requirements?	X			
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	X			
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	X			
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	X			
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems to control?		X		
f) Place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?		X		
g) Place within a 100-year floodplain structures which would impede or redirect flood flows?			X	
a-g. Drainage patterns may be altered as a result of General Plan buildout. In addition, development in undeveloped areas will result in changes to absorption rates and the rate and amount of surface runoff. Drainage issues will be discussed in the EIR. Potential flooding impacts affect both developed and undeveloped properties in the Town. A portion of the Town is located in the 100-year floodplain, but proposed policy would prohibit development within this area. Loomis is not in the dam inundation area for any major stream or river. Local flooding is a concern in the Town,				

and will be addressed in the EIR.

Buildout of the General Plan would result in increased water consumption. However, most water is obtained from surfacial sources outside the planning area. There are some private wells that draw from groundwater supplies, which are sporadic an generally unreliable in terms of both quantity and quality. Increased pumping could occur. The EIR will discuss possible impacts to groundwater sources including impacts resulting from lost recharge and increased pumping.

Surface waters may be significantly affected by development associated with the General Plan buildout. Future land uses replacing undeveloped areas may discharge substantial pollutants into surface waters including Secret Ravine and Antelope Creek. Development is also anticipated to result in increased surface runoff that has the potential to affect surface water quantities. Potential impacts to the quality and quantity of surface water will be identified and discussed in the EIR.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
IX. LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?			X	
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	X			
c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?			X	

a-c. The proposed updated General Plan establishes a planned land use pattern and long-range policies to guide growth within the Town corporate boundary, which is the same as its Sphere of Influence. These policies, to be implemented by a series of implementation measures, are intended to preserve and enhance the quality of the community through methods that are both environmentally sound and equitable to all citizens of the Town.

The General Plan land use designations guide the general distribution, location, and extent of the various types of land uses in the Town. Proposed land use designations will allow for the conversion of undeveloped or vacant land to urban uses. The plan also allows for buildout of existing Town lands. Policies are included in the General Plan to preserve viable agriculture and natural resources, including significant habitat. The physical arrangement of established communities would not be disrupted or divided; however, changes in land uses within the Town will result from implementation of the General Plan. These changes in land use will be discussed in the EIR.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
X. MINERAL RESOURCES - Would the project:				
a) Result in the loss of availability of a known mineral resource classified MRZ-2 by the State Geologist that would be of value to the region and the residents of the state?			X	
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?			X	

a-b. Various mineral deposits are found throughout the region, including sand, gravel, quarry rock (granite) and

gold. No active commercial mineral operations are located within the planning area, although several abandoned mines are located in the area. Development under the General Plan would not affect mining operations in the region. Mineral resources would not be significantly affected by implementation of the General Plan. This issue will not be addressed further in the EIR.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XI. NOISE - Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	X			
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	X			
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	X			
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	X			
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?			X	
f) For a project within the vicinity of a private airstrip would the project expose people residing or working in the project area to excessive noise levels?			X	
a-f. As a result of implementation of the General Plan, currently vacant and undeveloped areas may be developed. The development of these areas may produce increased noise levels. Increased development will result in an increase in vehicular generated noise, particularly on Interstate 80, Taylor Road, and Sierra College Boulevard. Future noise sources in the planning area also include the Union Pacific Railroad, and industrial, commercial, and agricultural operations. The General Plan contains policies to minimize noise impacts. Nevertheless, noise issues will be addressed in the EIR.				

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XII. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	X			
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?			X	
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?			X	
a-c. The buildout of the area is prescribed in the General Plan, and includes a variety of residential, commercial, industrial, recreation, and open space land uses. Infill within the current corporate boundary and within expansion areas as allowed under the proposed General Plan will result in additional housing and employment opportunities. The ultimate buildout of residential units will be consistent with the Town's housing element and current population projections of the Sacramento Area Council of Governments (SACOG). The effects of anticipated growth in the Town's population and housing units will be discussed in the EIR, as it pertains to regional land use and air quality-related growth forecasts to determine consistency with regional plans.				

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XIII. PUBLIC SERVICES - Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire protection?	X			
b) Police protection?	X			
c) Schools?	X			
d) Parks?	X			
e) Other public facilities?	X			
a-e. Increased development within the planning area may result in a need for additional fire and police protection services. Development may increase impacts on area schools and park facilities. Increased population may also increase maintenance costs of various public facilities. The EIR will address public services.				

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XIV. RECREATION -				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	X			
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	X			
a-b. The increase in population due to General Plan buildout may increase the demand for park and recreational facilities. The General Plan includes policies that would conserve and enhance the park resources for future generations. The plan endorses the concept of developing a comprehensive bike and pedestrian system that could also provide recreational opportunities. As discussed in *Section 11. Public Services*, the EIR will address issues related to parks and recreation.				

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XV. TRANSPORTATION/TRAFFIC - Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	X			
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	X			
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	X			

d) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	X			
e) Result in inadequate emergency access?	X			
f) Result in inadequate parking capacity?	X			
g) Conflict with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	X			

a-g. New trips will be generated by buildout of existing vacant and undeveloped parcels located within the current Town limits. This planned development and the potential population increase may generate additional vehicular movement, impact existing transportation systems, and create a demand for additional parking. In order to accommodate these increased traffic volumes, the General Plan includes improvements to the Town's existing circulation system. The goals and policies of the General Plan are planned to mitigate current and future demands on the circulation system. Buildout of the General Plan and implementation of the proposed improvements/extensions to the circulation system could result in inadequate emergency access, parking hazards to pedestrians and bicyclists, and impacts to air and rail traffic. Transportation and circulation issues will be discussed in the EIR.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XVI. UTILITIES AND SERVICE SYSTEMS - Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	X			
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	X			
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	X			
d) Are sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	X			
e) Has the wastewater treatment provider which serves or may serve the project determined that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	X			
f) Is the project served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs, and, does the project comply with federal, state, and local statutes and regulations related to solid waste?	X			

a-f. The South Placer Municipal Utility District (SPMUD) provides sewer service, and transports wastewater to the Roseville regional Wastewater Treatment Plant. The proposed General Plan would accommodate development that would increase the demand on sewer systems serving the planning area. This issue will be addressed in the EIR.

There are existing deficiencies in the Town's storm drainage facilities. Street flooding is often a problem during the rainy season. Buildout of the General Plan may result in a need for additional stormwater drainage facilities. This will be addressed in the EIR.

Auburn Placer Disposal Service (APDS) provides refuse pickup for the planning area. The refuse is currently disposed of at the Western Regional Sanitary Landfill, which has a 2,000-ton per day capacity. The increase in solid waste that will occur with the General Plan buildout may be substantial. The General Plan includes polices that support recycling to reduce the amount of solid waste sent to the landfill. The amount of solid

waste expected to be generated within the General Plan planning area will be addressed in the EIR.

Most water is supplied by the Placer County Water Agency (PCWA). Buildout of the General Plan would result in increased water consumption in the planning area. Existing water conveyance and distribution facilities may need to be modified to serve new development. The General Plan includes goals and policies to provide adequate water to serve new development in the planning area. The EIR will discuss impacts related to water supply and storage.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporation**	**No Impact**
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	X		
b) Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	X		
c) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	X		
d) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	X		

a and d. The proposed General Plan may generate impacts of unknown significance in the following areas: Land Use, Geology, Hazards, Hydrology, Air Quality, Transportation and Circulation, Biological Resources, Noise, Public Services and Utilities Systems, Aesthetics, Cultural Resources, and Recreation. The impacts associated with each of these issue areas will be identified and discussed in the EIR.

b. The General Plan is a long-term plan and is expected to improve the long-term potential of the Town by providing a framework and policy guide to preserve and protect the natural resources and to regulate development to prevent degradation of the environments. The EIR will identify and discuss any long-term environmental goals that may be disadvantaged as a result of adopting the proposed General Plan.

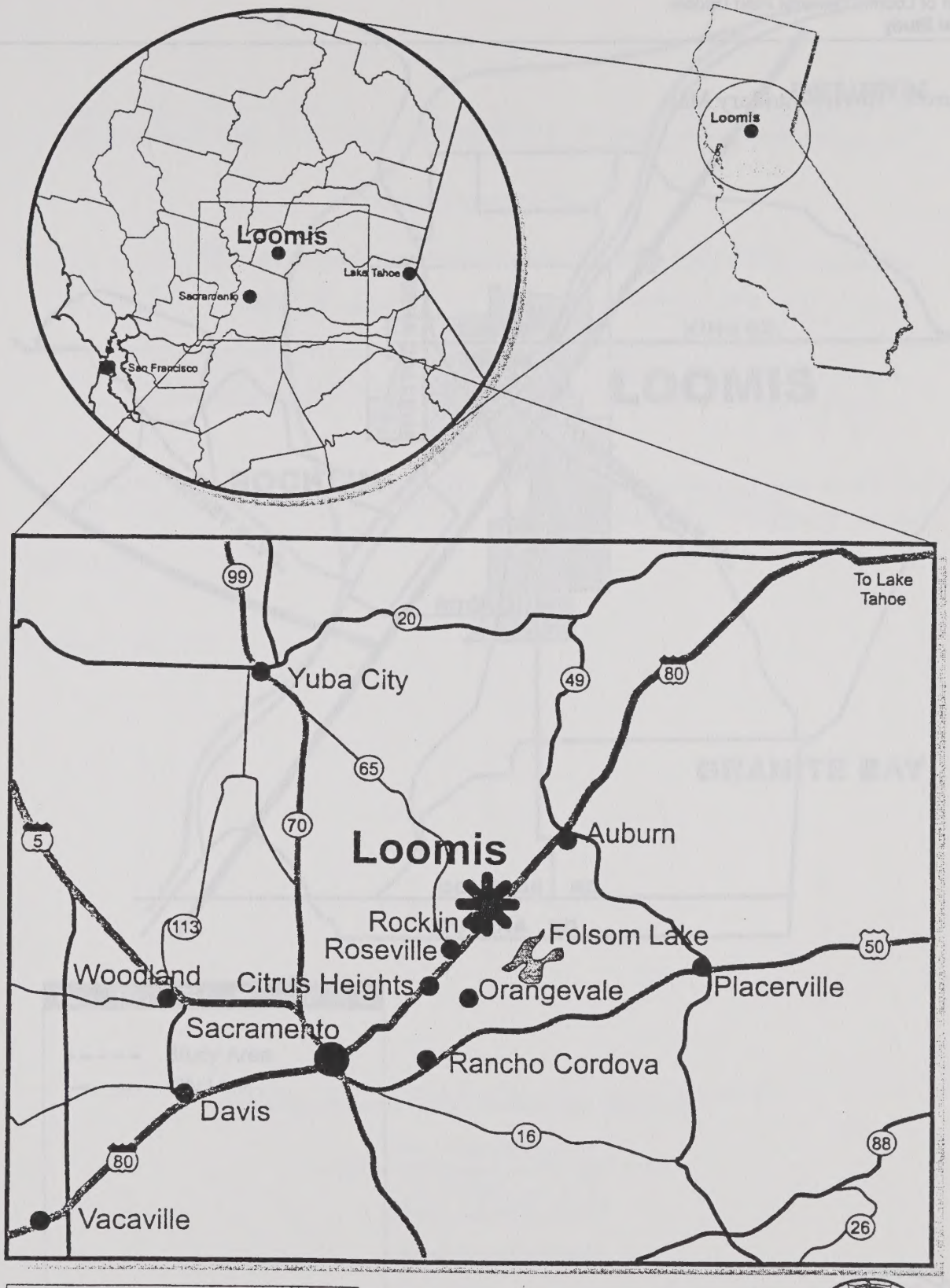
c. The General Plan is a guide for long-term development in the Town and includes policies that will reduce or prevent impacts to the environment. However, there may be impacts as a result of changes to the circulation system and land uses, and minor alterations (including beneficial improvements) to the planning areas natural resources and natural features. The potential cumulative effects may be significant and will be discussed in the EIR.

REFERENCES

Town of Loomis. *General Plan Update Technical Background Report.* 1998.

Town of Loomis. *Administrative Draft General Plan.* 1999.

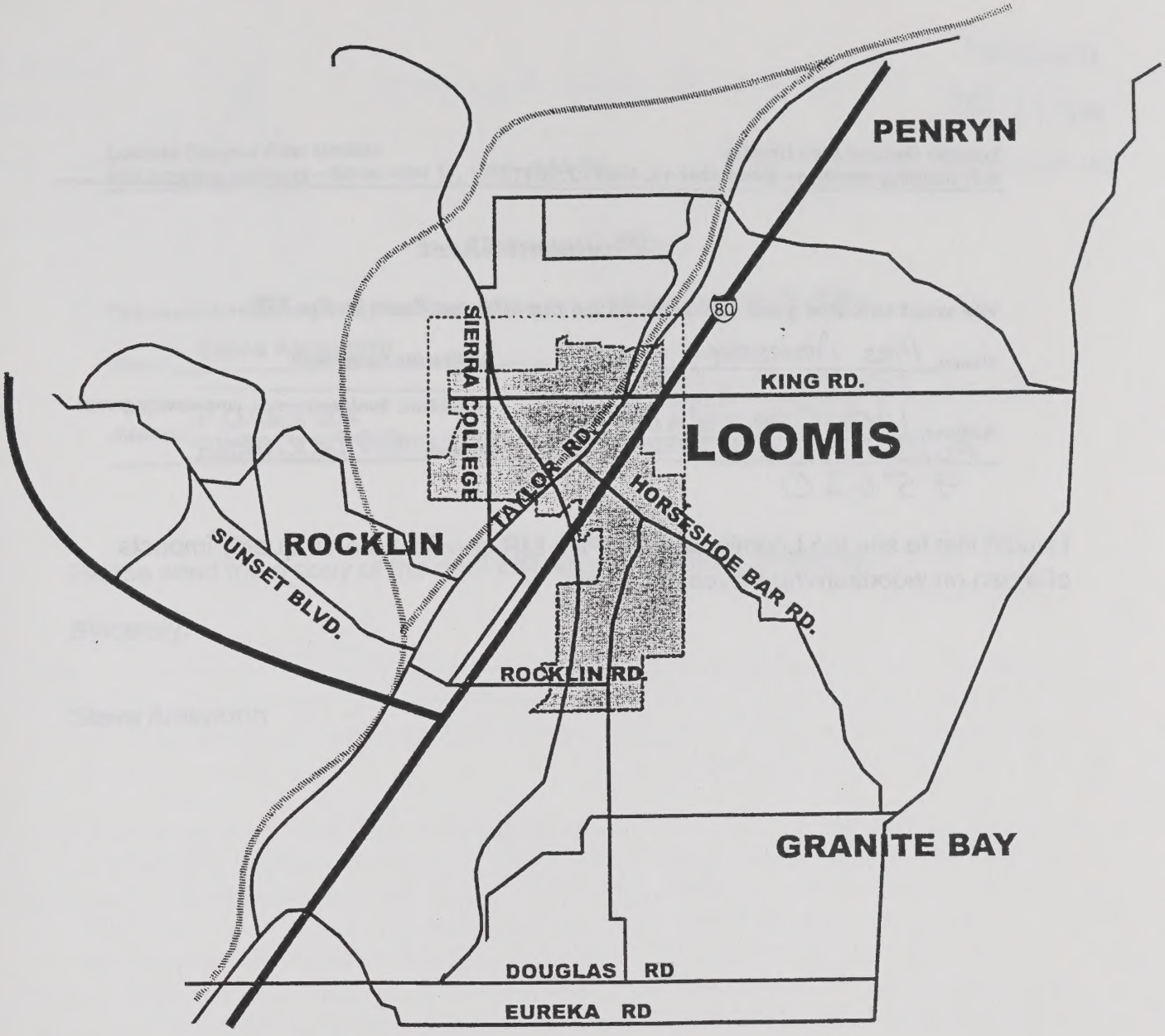
Figure 1 Regional Location Map



Town of Loomis

Figure 1
Regional Location

Figure 2: Town Boundary Map



LEGEND

Study Area

City Limit

0 600 1200 2400

Town of Loomis

Figure 2
Town Boundaries

Comment Sheet

We want to know your concerns, so we can address them in the EIR...

Name: MRS ACKLEY

Affiliation (optional):

(resident, businessperson, community group)

Address: 140 CROW CANYON
FOLSUM CA
95630

Phone: 989-2020

I would like to see the Loomis General Plan EIR consider the air quality impacts of a ban on woodburning stoves in Loomis.

Please leave with staff, or send by December 20, 1999 to:

Town of Loomis
6140 Horseshoe Bar Road, Suite K
P. O. Box 1327
Loomis, California 95650

Attention: Kathy Kerdus

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DEC 15 1999
TOWN OF LOOMIS

Comment Sheet

We want to know your concerns, so we can address them in the EIR...

Name: Steve Ainsworth

Affiliation (optional):

(resident, businessperson, community group)

Address: P.O. Box 304
Penryn, CA. 95663-0304

Phone: (916) 803-5658

Please send me a copy of the draft EIR when it becomes available.

Sincerely,

Steve Ainsworth

Please leave with staff, or send by December 20, 1999 to:

Town of Loomis
6140 Horseshoe Bar Road, Suite K
P. O. Box 1327
Loomis, California 95650

Attention: Kathy Kerdus

Placer County Water Agency

Business Center: 144 Ferguson Rd. • Mail: P.O. Box 6570 • Auburn, California 95604
(530) 823-4850 800-464-0030 TDD (530) 823-4966

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David A. Breninger, General Manager
Ed Tiedemann, General Counsel

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JAN 14 2000
TOWN OF LOOMIS

January 12, 2000
File No. WA/Loomis

Kathy Kerdus
Town of Loomis
6140 Horseshoe Bar Road, Suite K
P.O. Box 1327
Loomis, CA 95650

SUBJECT: Town of Loomis General Plan Update NOP of Draft EIR

Dear Ms. Kerdus:

In response to your request submitted pursuant to subdivision (d) of Water Code Section 10910, the projected water demand for the Town of Loomis General Plan Update (the "Project") was not included as part of this Agency's most recently adopted Urban Water Management Plan for the Agency's Zone No. 1 water system.

At the present time, the projected water supplies available for Zone No. 1 during normal, single-dry, and multi-dry water years included in the 20 year projection contained in the urban water management plan will not meet the projected water demand for the proposed Project, in addition to the Zone No. 1 system's existing and planned future uses.

Please be aware that the Agency does not reserve water for prospective customers. The purpose of this letter is to comply with the requirements of Section 10910 and apprise you of the current status of treated water available for the Project. The letter in no way confers any right or entitlement to receive water service in the future. The Agency makes commitments for service only upon the execution of a pipeline extension or service order agreement and the payment of all fees and charges required by the Agency, including the Plant Expansion and Replacement Charges.
If you have any questions, please call me at the Engineering Department at (530) 823-4886.

Sincerely,

Dave Campbell
Engineering Technician

DPC:bb
c:\jan00.wa

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JAN 19 2000
TOWN OF LOOMIS

Placer County
LOCAL AGENCY FORMATION COMMISSION
175 Fulweiler Avenue, Auburn, California, 95603
530.889.4097 FAX: 530.889.4099

Kathy Kerdus, Planning Director
Town of Loomis
P.O. Box 1327
Loomis, California 95650

January 14, 2000

Dear Ms. Kerdus,

Thank you for the opportunity to review the notice of preparation of a draft environmental impact report for the Loomis General Plan Update. We have no comments at present.

Sincerely,

Deborah Cubberley

Deborah Cubberley
LAFCO Executive Officer

cc: DRIAN, KATH

Placer County Water Agency

Business Center: 144 Ferguson Rd. • Mail: P.O. Box 6570 • Auburn, California 95604
(530) 823-4850 800-464-0030 TDD (530) 823-4966

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January 14, 2000

Kathy Kerdus
Town of Loomis
6140 Horseshoe Bar Road, Suite K
P.O. Box 1327
Loomis, CA 95650

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JAN 17 2000
TOWN OF LOOMIS

SUBJECT: Water Supply Status

Dear Kathy:

This letter is to provide the Town with an update of the status on water supply within the Foothill/Sunset water system which serves the lower portion of PCWA's Zone 1.

SUMMARY OF WATER AVAILABILITY:

The presently rated treatment capacity of the Foothill/Sunset water system is 32 million gallons per day (mgd). In 1999 the maximum day demand was approximately 30 mgd. The Agency's current outstanding commitment for treated water service, including already paid connections within the Foothill Sunset system, is approximately 35.5 mgd.

In December 1999, PCWA awarded a construction contract for the 28 mgd expansion of the Foothill WTP, which will increase the Foothill/Sunset system's treatment capacity to 60 mgd. The first phase of improvements, upgrading Foothill I's filter system, will yield up to 8 mgd of increased capacity prior to the summer of 2001. Completion of the entire project is scheduled prior to the summer of 2002. The Agency does not anticipate any limitations in service due to treatment plant capacity through the construction period.

In May of 1998, under Resolution 98-23, the Board of Directors reserved 6,000 acre feet of water to serve up to 8 mgd of new demand from the Foothill WTP expansion and 2.5 mgd of new demand within the Auburn Bowman system, until completion of a permanent, 35,500 acre foot capacity American River Pump Station. The Agency estimates that approximately 4,200 acre feet of that reserved water supply remains un-requested as of the date of this letter.

Because of continuing uncertainties on the American River Pump Station project, including Reclamation's intentions regarding the closure of the Auburn Dam diversion tunnel and federal funding, the Agency is not in a position to take on obligations to serve demands that would exceed the existing reservation of water for new treated water connections provided for in Resolution 98-23.

PAUL CRAWFORD
fax: John Richenbeck

With the completion of a permanent American River Pump Station, the Agency will be able to commit to a firm supply of agricultural water for Zone 5 and supply the remaining 20 mgd of treatment capacity available from the Foothill WTP expansion.

Loomis should note that the results of a survey of the land use jurisdictions within the Agency's service area taken by the Agency in the 4th quarter of 1999 indicate that to provide service for the buildout of all of the development projects currently holding approved tentative maps, and the fulfillment of existing raw water service commitments, will require 32,000 acre feet from the American River pump station and the full 28 mgd of new capacity from the Foothill WTP expansion. At the Agency's current rate of growth in treated water use, we expect that it will take about 10 years for the Foothill WTP expansion capacity to be fully utilized. Commitment of that capacity, and the continued availability of capacity for additional projects, is a function of the reservation of capacity by others through the payment of PERC.

The Agency's current plan to further expand the availability of treated water for development in western Placer County is through the planned diversion and treatment of 35,000 acre feet of water from the Sacramento River. Development of this source should enable the Agency to meet projected demands through the year 2030. Although the Agency is still in the preliminary stages of developing this alternative, it has initiated action on several fronts.

Developing a Sacramento River diversion facility is expected to entail a rather significant environmental analysis and permit process, and is likely to include the development of a Habitat Conservation Plan for much of western Placer County, in part because of the necessary federal agency actions required.

Based upon a 1996 study by the Agency, it is estimated that the complete buildout (to 80% of maximum density) of the existing General Plans of the area served by the Agency will require the diversion of yet an additional 29,000 acre feet (currently under contract to Northridge WD), from an unspecified location/source beyond the American and Sacramento River facilities described above and negotiated in the Water Forum. These projections also assume a substantial increase in conservation efforts within the Agency's service area. This level of water supply development will equate to the full use of all of the Agency's current water supply entitlements. An update of the buildout demand analysis is currently underway.

The Agency is in the final stages of design on the Penryn Lincoln Sunset Pipeline. When complete, this 42/30 inch pipeline will provide needed transmission capacity from the Foothill WTP to Lincoln, Rocklin, Loomis and portions of the unincorporated County. The Agency anticipates completion of this pipeline prior to the summer of 2002.

OTHER ISSUES:

The Agency has appreciated Loomis's continuing support for its American River Pump Station project, but more work remains to be done. We need to continue to work together in our lobbying efforts to achieve success because without this facility we will soon reach a limitation

in the Agency's ability to continue to provide water for agriculture, or to meet the needs of new growth.

From the data presented in this letter it appears that the approval of, or at least service to, additional development projects throughout western Placer County, including within Loomis, Rocklin, Lincoln and the County will be dependent upon not only the American River Pump Station, but on the Agency's success in developing a Sacramento River diversion and treatment facility as well. And increasingly it appears that the Sacramento River project may become linked to the Placer Legacy project, or a similar habitat conservation planning effort.

If you have any questions or would like to discuss the matters addressed in this letter please give me a call.

Sincerely,

PLACER COUNTY WATER AGENCY

Einar L. Maisch, P.E.
Director, Planning and Marketing

EIM/gah

cc: Dave Breninger
Board of Directors
Department Heads

South Placer Municipal Utility District

P.O. Box 45 — 3671 Taylor Road
LOOMIS, CALIFORNIA 95650
Phone (916) 652-5877

RECEIVED
JAN 19 2000
TOWN OF LOOMIS

January 18, 2000

Town of Loomis
P.O. Box 1327
Loomis, CA 95650

Attention: Kathy Kerdus

Subject: Notice of Preparation of a
Draft EIR for General Plan Update

Dear Ms. Kerdus:

The above property is within the service area of the South Placer Municipal Utility District, and is eligible for sewer service.

All sewer service which the District may hereafter provide to said lands or any portion thereof will be subject to all ordinances, resolutions, rules and regulations, taxes, charges, fees, and assessments of the SPMUD which may now be hereafter be in effect.

The design and construction of all on-site and off-site facilities which may be required as a result of this project will be the responsibility of the developer/owner. All work shall conform to the Standard Specifications of SPMUD. Improvement plans shall be submitted to SPMUD for review and approval.

This letter does not constitute a reservation of capacity in the District's sewage treatment facilities, nor does it constitute the assumption of a utility obligation to said lands or any portion thereof by the District.

The District may be rendered unable to provide sewer service to said lands due to prohibitions or restrictions which may be imposed upon it by federal, state, county or local regulatory agencies having jurisdiction or due to conditions caused by an Act of God. Prohibitions and/or restrictions may be imposed at the Roseville Regional Wastewater Treatment Plant on the plant's capacity;

this may also impact the District's ability to accept new applications for sewer service for the project.

This letter shall be of no force or effect after the expiration of 365 calendar days from the date hereof, but may at the discretion of the District, be renewed or extended upon application of the developer/owner of the land referred to herein or their agent.

All non-residential development within SPMUD is subject to the requirements of the City of Roseville Industrial Waste Pretreatment Program in accordance with Ordinance 14.26 of the Roseville Municipal Code.

Sincerely,

Richard R. Stein
Project Administrator

RRS:dad

PLACER COUNTY
SHERIFF
CORONER-MARSHAL

MAIN OFFICE
P.O. BOX 6990
AUBURN, CA 95604
PH: (530) 889-7800 FAX: (530) 889-7899

TAHOE SUBSTATION
DRAWER 1710
TAHOE CITY, CA 96145
PH: (530) 581-6300 FAX: (530) 581-6377

EDWARD N. BONNER
SHERIFF-CORONER-MARSHAL

STEPHEN L. D'ARCY
UNDERSHERIFF

Kathy Kerdus
Town of Loomis
6140 Horseshoe Bar Road, Suite K
Loomis, California 95650

Re: Draft EIR for General Plan Update

February 1, 2000

Dear Ms. Kerdus,

Thank you or the opportunity to review the proposed update of the Town of Loomis General Plan.

Based on *current calculations* and salaries, the vision of a 70% increase in population over a 20-year period would require augmentation of our staffing needs by approximately $30,000 per year, depending on the annual rate of population growth in Loomis (this does not include cost of living increases that may be incurred over the span of 20 years). The ability of the Sheriff's Department to handle law enforcement needs generated by this growth is dependent on authorization of funding by the Town of Loomis.

As with all projects and anticipated growth, many of the potential crime problems dealing with traffic circulation and structures may be reduced by utilizing the concepts of "Crime Prevention Through Environmental Design (CPTED). By working closely with law enforcement as projects are planned, design features which encourage criminal activity can be identified, and solutions found to mitigate problem areas.

I look forward to working with you as the town moves forward into the new century!

Sincerely,

EDWARD N. BONNER
SHERIFF/CORONER/MARSHAL

Deborah L. Putrino

DEBORAH L. PUTRINO
Crime Prevention/Community Services
Granite Bay Service Center / 791-5159

cc: RON ; KATHY

Pacific Gas and Electric Company
Building and Land Services

343 Sacramento Street
Auburn, CA 95603

February 1, 2000

Kathy Kerdus
Town of Loomis
Planning Director
P.O. Box 1327
Loomis, CA 95650

ATTN: Ron Mauck

Re: NOTICE OF PREPARATION OF A DRAFT EIR FOR GENERAL PLAN UPDATE

Mrs. Kerdus:

Thank you for the opportunity to review the Notice of Preparation of a Draft Environmental Impact Report for the General Plan Update.

We would like to note that continued development consistent with your General Plans will have a cumulative impact on PG&E's gas and electric systems and may require on-site and off-site additions and improvements to the facilities which supply these services. Because utility facilities are operated as an integrated system, the presence of an existing gas or electric transmission or distribution facility does not necessarily mean the facility has capacity to connect new loads.

Expansion of distribution and transmission lines and related facilities is a necessary consequence of growth and development. In addition to adding new distribution feeders, the range of electric system improvements needed to accommodate growth may include upgrading existing substation and transmission line equipment, expanding existing substations to their ultimate buildout capacity, and building new substations and interconnecting transmission lines. Comparable upgrades or additions needed to accommodate additional load on the gas system could include facilities such as regulator stations, odorizer stations, valve lots, distribution and transmissions lines.

PG&E remains committed to working with Town of Loomis to provide timely, reliable and cost effective gas and electric service to the Loomis area. Please call me at (530) 889-3163 if you have any questions regarding our comments. We would also appreciate being copied on future correspondence regarding this subject as the project develops.

Sincerely,

Frank L. Forgey
Land Agent

Placer Union High School District

DR. RANDALL OLSON
Superintendent

MR. BART O'BRIEN
Assistant Superintendent,
Personnel and Staff Development

MS. KRIS CAMPBELL
Assistant Superintendent,
Business Services

MR. MARK WARNER
Director of Special Services

MR. TOM BARRY
Administrative Assistant

MR. JUG COVICH
Director of Foundations

P.O. Box 5048 • 13000 New Airport Road
Auburn, California 95604-5048

Business Services • (530) 886-4413
Food Services • (530) 886-4470
Maintenance • (530) 886-4460
Payroll • (530) 886-4409
Personnel Services • (530) 886-4401
Special Services • (530) 886-4418
Superintendent • (530) 886-4405
FAX (530) 886-4439

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COLFAX HIGH SCHOOL
DEL ORO HIGH SCHOOL
MAIDU HIGH SCHOOL
PLACER HIGH SCHOOL
PLACER SCHOOL FOR ADULTS

February 3, 2000

Ms. Kathy Kerdus, Planning Director
Town of Loomis
6140 Horseshoe Bar Road, Suite K
Loomis, CA 95650

Dear Kathy:

The Placer Union High School District received notification of the General Plan Update process for the Town of Loomis. As you know, the Loomis Union School District is a "feeder" elementary district into the high school district.

The Placer Union High School District supports the response given by Loomis Union to the general plan update and will work cooperatively with both the District and the Town to ensure the educational needs of all K-12 grade students are adequately addressed.

We look forward to participating in the process. If you have any questions or comments, please call me at (530) 886-4612.

Sincerely,

Cathy Allen
Director, Facility Services
Placer County Office of Education

RECEIVED
FEB 04 2000
TOWN OF LOOMIS

pc: Dr. Randall Olson, Superintendent, Placer Union High School District
Mr. Gigg Powers, Superintendent, Loomis Union School District

PUHSD/Loomis GP update 2/00

Loomis Union School District

3290 Humphrey Road, Loomis, CA 95650 · (916) 652-1800

Building Excellence in Education Since 1856

Gigg Powers, Superintendent

February 3, 2000

Kathy Kerdus, Planning Director
Town of Loomis
6140 Horseshoe Bar Road, Suite K
Loomis, CA 95650

Dear Kathy:

On behalf of the Loomis Union School District, thank you for the opportunity to provide input concerning the Town of Loomis General Plan Update.

The following issues are important to school districts and are routinely found in community and general plans for any city, county, or town. We request consideration of the following items:

1. A designated school component section in the general plan that addresses specific school issues.

2. Treatment of all school issues as necessary and integral parts of the community, such as water, sewer, and fire facilities.

3. An inventory of existing levels of service for each school district, within the sphere of influence, along with projections at five, ten, and fifteen years out that show students and facility needs. We will be happy to provide this information as we move through the process of updating your general plan.

4. Designation of school sites and acquisition of property are major concerns to school districts especially in rural areas where there are not many large developments that can provide their own schools. Policies should state clearly how school sites are designated, within the Town's sphere of influence if feasible, and suggest acquisition methods.

5. Joint planning between school districts and other public agencies should be considered. Park and recreation services for turf areas, and buildings such as gymnasiums, community centers, and libraries are examples of joint planning.

BOARD OF TRUSTEES • VIVIAN ADAMS • JAMES CORTESE • LORENE EUERLE • MICHAEL STAFFORD • GREG YEPEZ

Franklin School
7050 Franklin School Road
Peter Towne, Principal
(916) 652-1818

Loomis School
3505 Taylor Road
Glenn Lockwood, Principal
(916) 652-1824

Placer School
8650 Horseshoe Bar Road
Brent Cushenbery, Principal
(916) 652-1830

6. Financing the construction of schools is also a major component. The identification of alternative funding sources should be included in the plan. The earlier action taken by the Town Council enabling the school district to require developers to enter into mutual benefit agreements was a huge step in the financing of local school facilities. However, due to recent legislation, as of January 2000 districts are no longer able to require this financing mechanism from developers. The Town of Loomis was very proactive in assisting the school district with the implementation of the mutual benefit agreements and the general plan update should include an updated policy on the Town's position on assisting school districts in this area. A sub-policy statement could also be included to correspond the timing of development with the construction of schools.

7. Placement of schools in a neighborhood, and extension of water, sewer and other utilities to school sites are very important issues that need to be addressed.

Specific policy language will be developed for consideration for inclusion in the general plan update. We look forward to contributing to the process and appreciate the assistance the Town of Loomis has provided the school district in its ongoing efforts to provide quality educational facilities for students.

Again, thank you very much for your willingness to consider these comments in the planning process. Please let me know if I can be of further assistance.

Sincerely,

Cathy Allen
Director, Facility Services
Placer County Office of Education

cc: Mr. Gigg Powers, Superintendent, Loomis Union School District
Dr. Randall Olson, Superintendent, Placer Union High School District

KK
Paul
John

PLACER COUNTY
FLOOD CONTROL AND WATER CONSERVATION DISTRICT

JAN WITTER, Executive Director
LESLIE GAULT, District Engineer
ANDREW DARROW, Development Coordinator
KAREN STILLIAN, Secretary

February 3, 2000

Kathy Kerdus
Town of Loomis
P.O. Box 1327
Loomis, CA 95650

RECEIVED
FEB 04 2000
TOWN OF LOOMIS

RE: General Plan Update / Notice of Preparation of a Draft EIR

Dear Kathy:

We have reviewed the Notice of Preparation of a Draft EIR (DEIR) for the Town of Loomis' General Plan Update and have the following comments.

1. The Town of Loomis is a member of the Placer County Flood Control and Water Conservation District. The District and Town have executed a coordination agreement that describes the responsibilities of each organization.

2. The Town of Loomis is located entirely within the Dry Creek watershed. A general assessment of flooding in this watershed is indicated in the "Dry Creek Watershed Flood Control Plan" report by James M. Montgomery (JMM), April 1992. Figure 5-2 (JMM, 1992) indicates that a large majority of the Town is located where local detention is required.

3. The Dry Creek Watershed Flood Control Plan (DCWFCP) was predicated upon the land uses and densities in the Town of Loomis' General Plan that was in use in 1992. All proposed and planned facilities in the DCWFCP are therefore analyzed using older and less intensive land uses in Loomis. The proposed increases in land densities and uses have the potential to create the following impacts beyond those analyzed in the DCWFCP:

   a.) Higher peak runoff flows both at the development sites and at downstream locations.

   b.) Increases in runoff volumes.

   c.) Overloading of the actual or designed capacity of existing stormwater and flood-carrying facilities.

   d.) The alteration of floodplain boundaries.

4. The DEIR must specifically quantify the incremental effects of each of the above impacts due to the land use and density changes to be allowed in the General Plan Update, and must propose mitigation where appropriate.

The District requests the opportunity to review all further environmental documentation for the General Plan Update. Please call me at (530) 889-7303 if you have any questions regarding these comments.

Andrew Darrow, P.E.
Development Coordinator

cc: File
Chron

AD:KS

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STATE OF CALIFORNIA – BUSINESS, TRANSPORTATION, AND HOUSING AGENCY
GRAY DAVIS, Governor

CRAWFORD BROWN

DEPARTMENT OF TRANSPORTATION
DISTRICT 3, SACRAMENTO AREA OFFICE – MS 41
P. O. BOX 942874
SACRAMENTO, CA 94274-0001
TDD (530) 741-4509
FAX (916) 323-7669
Telephone (916) 327-3859

February 08, 2000

LPLA004
Notice of Preparation
Draft EIR for Town of Loomis
General Plan Update
03PLA80 PM 8.724

RECEIVED
FEB 14 2000
TOWN OF LOOMIS

Ms. Kathy Kerdus
Town of Loomis
6140 Horseshoe Bar Rd.
Suite K/P.O. Box 1327
Loomis CA 95650

Dear Ms. Kerdus:

Thank you for the opportunity to comment on the Notice of Preparation for the Draft EIR for the Town of Loomis General Plan Update. Our comments are as follows:

- A Traffic Impact Study is needed. The project's impacts to Interstate 80 Interchange and its interchanges with local streets, in particular the Horseshoe Bar Interchange, should be evaluated. The Traffic Impact Study should incorporate the following:

  -- Existing conditions
  -- Existing with project conditions
  -- Cumulative conditions (to year 2020)
  -- Cumulative with project conditions (to year 2020)

- Mitigation measures should be identified where the project is found to have significant impacts. Caltrans considers the following to be significant impacts:

  -- Off ramps with vehicle queues that extend into the ramps de-acceleration area or onto the freeway.
  -- Vehicle queues at intersections that exceed existing lane storage.

- -- The project's impacts that cause any ramp's merge/diverge LOS to be worse than the freeway's LOS.
- -- Project impacts that cause the freeway or intersection LOS to deteriorate beyond LOS 'E' for the freeway and LOS 'D' for highway and intersections. If the LOS is already 'E' or 'F', then a quantitative measure of increased queue lengths and delay should be used to determine appropriate mitigation

- Possible mitigation measures to consider include:
  - -- Adding mainline capacity
  - -- Widening interchange ramps to increase capacity
  - -- Modifying ramp terminal intersections
  - -- Increasing the ramp acceleration or de-acceleration lane length to improve merge/diverge operations.
  - -- Adding ramp metering systems to on-ramps

- Future transportation systems assumed for cumulative conditions should only include those improvements that are included in the Placer County Transportation Planning Agency's most current Regional Transportation Plan.

- Any increases of discharge into the State drainage system must be mitigated. Existing drainage patterns must be perpetuated or improved within the State right of way. Pre and post-project discharge information should be supplied for Caltrans review.

- The General Plan should address the following policies and objectives:

  - -- The preservation of right of way for the future expansion of Interstate 80 and associated interchanges with the local street system. Our system planning indicates a need for an eight-lane facility for Interstate 80 through the City of Loomis for the next 20 years, as well as an ultimate need for a facility.

  - -- Development of a local transportation system which minimizes the use of Interstate 80 for local trips. The primary objective of the State Highway System is to accommodate the interregional and interstate movement of people and goods. Local trips create inefficiencies for the State Highway System.

-- The shared responsibility of the City of Loomis and State for capacity improvements to Interstate 80 relative to the importance of the freeway to the Loomis residents and economy.

Please provide our office with a copy of the Draft EIR and all other documents related to the Plan Update. If you have any questions, please contact Rebecca Sanchez at (916) 324-6634.

Sincerely,

JEFFREY PULVERMAN, Chief
Office of Regional Planning

cc: John Ackerman
Paul Crawford
Steve Boden

City of Rocklin

3970 Rocklin Road
P.O. Box 1380
Rocklin, CA 95677-7380
916-632-4000
TDD 916-632-4013

February 11, 2000

Kathy Kerdus
Planning Director
Town of Loomis
6140 Horseshoe Bar Road, Suite K
Loomis, CA 95650

RECEIVED
FEB 14 2000
TOWN OF LOOMIS

RE: Notice of Preparation of a Draft EIR on Loomis General Plan Update

Dear Kathy,

Thank you for referring the Notice of Preparation of a Draft EIR for the Loomis General Plan Update. The City of Rocklin is particularly concerned as to how the Town of Loomis will be addressing issues that are common to our adjoining city limit boundaries.

It is not clear from the black and white land use diagram, which I received, as to which Loomis residential areas adjoin commercial designated parcels in Rocklin. The environmental analysis should identify these areas and address the impacts that these adjoining land uses could have on each other. Where necessary, appropriate mitigations should be identified. A policy, similar to that of the City of Rocklin, should be considered that requires houses that are adjacent to commercially designated properties to single-story dwelling units.

The draft Loomis General Plan does indicate several road improvements that are of mutual concern. Those improvements include:

- Widening of Sierra College Boulevard to 4-lanes north of Bankhead.
- Widening of Sierra College Boulevard to 6-lanes south of Bankhead to Ridge Park Drive
- Reconstruct the I-80/Sierra College Interchange
- Signalization of Brace Road/Sierra College Boulevard
- Closing the northern portion of Delmar Avenue to reduce the amount of traffic that diverts from Sierra College Boulevard

The environmental review should address alternatives and impacts of closing a portion of Delmar Avenue and also the possible closing of Brace Road between Taylor Road and Sierra College Boulevard. The draft Loomis GP does mention the possible creation of a Joint Powers Authority (JPA) as a funding source for improvements on Sierra College Boulevard. The likelihood for creating this JPA and timing for such a JPA should also be addressed.

Finally, the environmental analysis should adequately address downstream drainage impacts and include alternatives for mitigating those impacts. The use of detention facilities should be adequately analyzed.

If you have any questions or need additional information, please contact me.

Sincerely,

Terry A. Richardson
Community Development Director

cc: Carlos Urrutia, City Manager

TAR/gb
g:\corresp\2000\loomis gp nop

Placer County Environmental Health Services

Memorandum

To: Kathy Kerdus, Planning Director

CC: Roger Davies

From: Allison Carlos, Supervisor
Land Use and Water Resources Section

Date: February 28, 2000

Re: Loomis General Plan - Review of draft General Plan

Environmental Health Services has reviewed the referenced document and makes the following comments.

Noise

- The noise section should reflect a standard use of noise descriptors. Typically, in California, the stationary noise descriptors used for performance and evaluation standards are Leq and Lmax. This document proposes the 24-hour standard of Ldn for stationary noises. Although the Placer County General Plan reflects the use of Ldn for stationary noise, this was an eleventh hour change at the Board of Supervisors hearing to attempt to address a large industrial area of the County. The use of other standard descriptors for the Town of Loomis environment would seem appropriate.

- The noise section does not appear to have been developed based upon the analysis of the current and projected future noise levels, including: current ambient, industrial and manufacturing, major roadways, freeways, and aircraft flight zones. These types of analyses, which should include collection of data, is commonly completed by a consultant as part of the preparation of a general plan.

  The data that was provided in the document does not include future levels. Additionally, the railroad noise levels appear to be based upon old train daily trips data.

March 1, 2000

Public sewer service

- Page 79, number 4: The policies relative to connection to public water and sewer service are appropriately supportive of connection of non residential and higher density developments on these public services. It is especially encouraging to see the Town require public sewer and water services in the commercial areas east of Interstate 80. Please note, although 2.3 acres has been traditional parcel minimum size of on site treatment systems, in the Town of Loomis area, there are high groundwater conditions that will are not conducive to on site treatment systems installation. Likewise, there may be conditions of low individual water well yield within the more rural areas that may not support major development. Additional policies that the Town may want to consider these additional policies.

-The Town of Loomis shall require proponents of new developments to demonstrate the availability of a long-term, reliable water supply. The Town shall reqire written certification from the service provider that either existing services are available or needed improvements will be made prior to occupancy.

-Where groundwater is proposed, adequate test wells, appropriate reports, and/or report(s) from a qualified professional will be required substantiating long-term availability of suitable groundwater.

-Urban and suburban development should rely on public water systems using surface water.

-The Town of Loomis shalll require proponents of new development within a sewer service area to provide written certification from the service provider that either existing services are available or needed improvements will be made prior to occupancy.

-The Town shall discourage the development of residneces or schools near known hazardous waste disposal or handling facilities.

ttachment

Private Wells. Portions of the Loomis community do not have access to the PCWA's distribution system and are supplied by private wells. The rural residential properties along Barton Road are within the largest area in Loomis not served by the PCWA. Groundwater distribution in the planning area is sporadic and well yield is highly variable. The average production of wells in the area is 4 to 9 gallons per minute. Water quality varies with the source. Granitic rock wells provide the best water quality in the area and many of the area's wells are of this type. Wells overlying alluvial deposits vary from low to moderate quality. Many wells in the area experience iron and manganese contamination, sometimes associated with low yield. Please refer to Section 4.2.3, *Groundwater*, for further discussion of this issue.

Wastewater

Most of the planning area is connected to wastewater collection infrastructure, a service provided by the South Placer Municipal Utility District (SPMUD). North of Interstate 80, the Town is served by sewer lines ranging from six to 12 inches in diameter. The primary service line is a 15-inch pipe near Taylor Road, known as the Lower Loomis Trunk Sewer. South of the freeway, the Middle Secret Ravine Trunk extends to Barton Road and a tributary pipe network serves portions of the community in this area.

The SPMUD Sewer Master Plan (1986) identifies the need for an 18-inch Middle Antelope Creek Trunk Sewer to serve future development in the western portion of the community. SPMUD would extend this trunk northward along the general alignment of Antelope Creek as growth requires. This plan would be most easily implemented if growth occurred from south to north along this corridor, so infrastructure could be extended logically.

The trunk sewer system collects wastewater from residential and commercial uses and transports it to the Roseville Regional Wastewater Treatment Plant (RRWWTP). The RRWWTP currently treats an inflow of about 13 million gallons per day (mgd), and was recently expanded to accommodate up to 18 mgd.

Some of the wastewater in the planning area is treated by on-site private septic systems, particularly within larger rural residential lots on the periphery of the planning area, especially (but not exclusively) in unincorporated areas. Some septic systems in the area have a history of discharge and maintenance problems. However, because the placement and maintenance of septic systems is up to private individuals and not public agencies, issues related to septic systems are discussed in more detail in Sections 4.2 and 4.3 of this report, *Water Resources* and *Soil and Mineral Resources*, respectively.

Drainage & Flood Control

The planning area is within the Dry Creek watershed, which covers about 101 square miles in Placer and Sacramento counties. Antelope Creek, Secret Ravine, and their tributaries are the primary drainages in the area.

The Placer County Flood Control and Water Conservation District (PCFCWCD) is responsible for developing flood control management strategies within the County. The Dry Creek Watershed Flood Control Plan (James M. Montgomery, 1992) prepared for the PCFCWCD and the Sacramento County Water Agency addresses flood control within the watershed, and suggests the following development principles:

- New development should provide on-site detention;
- Local policies should be implemented to restrict the removal of riparian vegetation along channels;
- Regional detention basins should be constructed;
- Inadequate bridges and culverts should be replaced; and
- Procedures for flood preparedness should be formulated.

The Town of Loomis Resolution 97-70 establishes an agreement between PCFCWCD and the Town to coordinate the development, support and operation of PCFCWCD facilities. Within the planning area, the

cc: CRAWFORD
RICKENBACH

Placer County Water Agency

Business Center: 144 Ferguson Rd. • Mail: P.O. Box 6570 • Auburn, California 95604
(530) 823-4850 800-464-0030 TDD (530) 823-4966

A Public Agency

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Pauline Roccucci • Alex Ferreira
Otis Wollan • Lowell Jarvis
W. Bruce Lee
David A. Breninger, General Manager
Ed Tiedemann, General Counsel

March 7, 2000
File No. WA/Loomis

RECEIVED
MAR 10 2000
TOWN OF LOOMIS

Kathy Kerdus, Planning Director
Town of Loomis
Planning Department
6140 Horseshoe Bar Road, Ste. K
Loomis, CA 95650

SUBJECT: Draft of Towns proposed General Plan Update (portion)

Dear Ms. Kerdus:

This letter is written in response to your February 14, 2000 Fax request for comments on a portion of the Towns proposed general plan update.

The water supply figures shown in Table 5-2 are correct with the exception of the Bureau of Reclamation contracted figure of 117,000-acre feet per year (AFY). The available water supply to the Agency from the Bureau of Reclamation is 35,000 AFY prior to the completion of an Auburn Dam. The Agency's ability to pump it's water supplies from the American-Rubicon rivers is limited to the capacity of the temporary pumps that are installed and removed by the Bureau of Reclamation each year. A permanent pump station in the American River is needed to allow the Agency to fully access its water supply.

The Agency now operates four water treatment plants in the Agency's Zone No. 1 service area. The old Newcastle water treatment plant has been abandoned. The Foothill water treatment plant capacity of 27 million gallons per day (mgd) is currently being expanded in phases. Utilizing new plant process technology the design capacity at build out of this plant is now approximately 55 mgd.

Since your previous general plan the Agency has added 10 million gallons (mg) of clearwell storage at it's Foothill water treatment plant. The Agency is currently increasing its system storage capabilities in Newcastle with a 1 mg tank and adjacent to the Sunset Water Treatment Plant at the boarder between the Cities of Rocklin and Lincoln, a 10 mg tank with provisions for an another 10 mg tank in the future. The old unused 120,000 elevated storage tank on Taylor Road has been abandoned and removed.

If you have any questions, please call me at the Engineering Department at (530) 823-4886.

Sincerely,

Dave Campbell
Engineering Technician

DPC:hs
cc:\march00.cor

CC: CRAWFORD
RICKENBACH

PLACER COUNTY AIR POLLUTION CONTROL DISTRICT

11464 B Avenue, Auburn, CA 95603 • (530) 889-7130 • Fax (530) 889-7107

Richard G. Johnson, Air Pollution Control Officer

FAX

To:	Kathy Kerdus	**Date:**	March 7, 2000
Fax #:	916.652.1847	**Pages:**	9, including this cover sheet.
From:	Dave Vintze		
Subject:	Draft General Plan Update		

Kathy - Due to your time constraints and my work load, I would recommend that you use the "Regulatory Setting" information from the Bickford Ranch DEIR. It is more accurate on current air quality regulation than the existing information that you faxed to me. I will continue to send you information that I think you can use during your general plan update and hearings.

Please call me at (530) 889-7131 if you have any questions or need any specific information that I have not provided. Please try and give me as much lead time as possible, and I will try and get things to you in a timely manner.

Thanks

Dave

[T:\APC\DV\CEQA\LOOMIS\KKERDUS.GP]

Ozone

Ozone concentrations in western Placer County typically exceed state and federal standards many times during the year, as shown by monitoring data in Table 8-1. Because these standard violations occur throughout the broader Sacramento area, EPA has designated the Sacramento Air Quality Maintenance Area, an area spanning the broader Sacramento area including western Placer County, as non-attainment area with respect to the federal one-hour ozone standard. Placer County is also designated as a non-attainment area for the state ozone standard.

Ozone is formed in the atmosphere in the presence of sunlight by a series of chemical reactions involving oxides of nitrogen (NO_X) and reactive organic gases (ROG). Because these reactions occur on a regional scale, ozone is considered a regional air pollutant. A primary constituent of smog, ozone causes eye and lung irritation, visibility reduction, and crop damage. Sensitive receptors exposed to high ozone concentrations may suffer from reduced resistance to lung infection, eye irritation, and shortness of breath. Vehicular exhaust is the major source of ozone precursors in the Sacramento area.

Table 8-1 shows that the state ozone standard was exceeded on 146 days between 1992 and 1996 at the Rocklin monitoring station; the federal one-hour ozone standard was violated 15 times during this period. Although EPA only recently promulgated the eight-hour ozone standard of 0.08 parts per million (ppm), historical data indicate that ozone concentrations in the Rocklin area have exceeded the new federal standard. Ozone is a regional air pollutant, thus monitored concentrations at the Rocklin station are considered representative of ozone concentrations in the study area.

Carbon Monoxide

CO standards exist for both one- and eight-hour average concentrations to regulate both short-term and extended-term pollutant exposure. Placer County has been designated as unclassified with respect to state CO standards, and has recently been classified as attainment with respect to federal one- and eight-hour CO concentration standards.

CO is a local pollutant caused primarily through incomplete fuel combustion; vehicular exhaust is the major source of CO in Placer County; however, residential wood stoves and fireplaces also contribute substantially to CO emissions. CO concentrations are highest near heavily traveled roadways, and particularly near intersections. Vehicular CO emissions increase as ambient temperature and average vehicle speed decrease, causing worst-case CO concentrations during winter months and in areas of heavy traffic congestion. High levels of CO can impair the transport of oxygen in the bloodstream and thereby aggravate cardiovascular disease and cause fatigue, headaches, and dizziness.

Table 8-1 shows that neither the state nor the federal eight-hour CO standard was violated between 1992 and 1996 at the Rocklin monitoring station.

Particulate Matter

Airborne particulate matter is generally composed of minute separate particles in the air such as dust soot, aerosols, fumes, and mists. The particles of primary concern are inhalable particulates. The characteristics, sources, and potential health effects of larger, or "coarse" particles (from 2.5 to 1(micrometers in diameter) and smaller or "fine" particles (smaller than 2.5 micrometers in diameter) ar very different. Coarse particles, or PM_{10}, are generated by sources such as windblown dust, agricultura

[2] Oxides of nitrogen include NO_2.

are operated throughout the broader Sacramento area by the California Air Resources Board (CARB) and assorted air districts. The two air monitoring stations currently operating closest to the proposed project site are CARB's Rocklin station, about six miles south of the proposed project site, and the Lincoln station approximately three miles west of the project site. The Rocklin station collects both particulate and gaseous pollutant monitoring data. The Lincoln station collects only particulate monitoring data. Other monitoring stations near the study area are located on North Sunrise Avenue in Roseville, about 11 miles south of the proposed project site, and in North Highlands in Sacramento County, approximately 14 miles southwest of the proposed project site. Table 8-1 presents a summary of CO, ozone, and PM_{10} (particulate matter with diameter between 2.5 and 10 microns) data collected at the Rocklin station in recent years.

Table 8-1
Ambient Air Quality Standards and Maximum Measured Concentrations
(Rocklin, 1992-1996)

Pollutant	Federal Standard	992	Maximum Measured Concentration[2]				
			1993	1994	1995	1996	1997
Carbon Monoxide							
One-hour maximum concentration (ppm)[2]	35	20.0	4	5	3	3	**[6]
Number of federal standard violations				0	0	0	**
Number of state standard violations				0	0	0	**
Eight-hour maximum concentration (ppm)	9	9.0	2.3	2.3	1.6	1.6	**
Number of federal standard violations				0	0	0	**
Number of state standard violations				0	0	0	**
Ozone							
One-hour maximum concentration (ppm)	0.12	0.09	0.15	0.13	0.15	0.13	0.11
Number of federal standard violations				3	1	3	0
Number of state standard violations				21	29	25	9
Eight-hour maximum concentration (ppm)	0.08	N/A[3]	0.12	0.11	0.11	*[4]	*
Number of federal standard violations				9	20	19	*
Respirable Particulates (PM_{10})							
24-hour maximum concentration ($\mu g/m^3$)[5]	150	50	58	79	87	**[6]	66
Number of federal standard violations			0	0	0	**	0
Number of state standard violations			3		13	**	4
Annual Arithmetic Mean ($\mu g/m^3$)	50	N/A	29.6	24.2	39.5	**	21.9
Annual Geometric Mean ($\mu g/m^3$)	N/A	30	25.8	24.5	34.3	**	15.7
Fine Particulates ($PM_{2.5}$)							
24-hour maximum concentration ($\mu g/m^3$)	65	*	*	*	*	*	*
Number of federal standard violations			*	*	*	*	*
Annual Arithmetic Mean ($\mu g/m^3$)	15	*	*	*	*	*	*

Notes:

[1] CO and ozone monitoring data collected at CARB's Rocklin monitoring station. Particulate data collected at the Lincoln monitoring station.

[2] ppm = parts per million

[3] N/A = Not Applicable – No standard promulgated

[4] * = Monitoring data not yet available. EPA implemented the $PM_{2.5}$ and the eight-hour ozone standards in 1997. A history of eight-hour monitoring data for ozone were made available by CARB for monitoring years 1992-1995; a $PM_{2.5}$ monitoring network is currently under construction throughout California.

[5] $\mu g/m^3$ = micrograms per cubic meter

[6] ** = No data reported.

Source: California Air Resources Board, California Air Quality Data (1992-1996)

Table 8-2
1996 Estimated Average Emissions – Placer County

Source Category	Pollutant Emissions (Tons/Day)						
	TOG	ROG	CO	NO_X	SO_2	PM	PM_{10}
STATIONARY SOURCES							
Fuel Combustion	0	0	1.8	1.3	0.1	0.3	0.3
Other Industrial Processes[1]	8.7	6.7	0	0.1	0	1.5	0.9
Total Stationary Sources	8.7	6.7	1.8	1.3	0.1	1.8	1.2
AREA SOURCES							
Solvent Evaporation	3.5	3.4	0	0	0	0	0
Miscellaneous Processes	6.7	3.3	51.7	1	0.1	31	19.1
Total Area Sources	10.2	6.7	51.7	1	0.1	31	19.1
MOBILE SOURCES							
On-Road Vehicles	15.9	14	135.9	19.3	0.3	0.7	0.6
Other Mobile	3.6	3.5	26.1	7.7	0.4	0.4	0.4
Total Mobile Sources	19.5	17.5	162	27	0.7	1.1	1.0
NATURAL (NON-ANTHROPOGENIC) SOURCES							
Total Natural Sources	0.1	0.1	1.1	0	0	0.2	0.2
Total Placer County	**38**	**31**	**217**	**29**	**1**	**34**	**22**

Notes:
[1] Emissions are primarily from construction and demolition activities, entrained road dust, and waste disposal.
Source: CARB, 1998a.

8.2 REGULATORY SETTING

Air quality in the study area is regulated by several agencies including EPA, CARB, and the Placer County Air Pollution Control District (APCD). Each of these agencies develop rules and/or regulations to attain various air quality goals. Although EPA regulations may not be superseded, both State and local regulations may be more stringent than federal air quality regulations. In general, state and federal agencies are responsible for regulating emissions from on-road and off-road vehicles and establishing air quality standards; local APCDs are responsible for implementing state and federal air quality regulations, permitting stationary sources of air pollution, and developing plans aimed at attaining ambient air quality standards. Emissions from indirect sources, such as automobile traffic associated with development projects, are addressed through APCD air quality plans.

Air quality is sometimes regulated on a county-by-county basis and sometimes on a regional (e.g., basin-wide) basis. This distinction is particularly relevant in Placer County, which spans three air basins in California: the southwestern third of the county lies within the SVAB; the northernmost portion of Placer County is within the Lake Tahoe Air Basin; and the remainder is within the Mountain Counties Air Basin. Because portions of Placer County lie within the SVAB, the District coordinates with other SVAB air districts to resolve basin-wide air pollution problems.

Placer County's General Plan contains policies governing development within Placer County. The policies relating to air quality are identified in the General Plan Consistency discussion in Section 8.3.

fields, and dust from vehicular traffic on unpaved roads. Fine particles, or $PM_{2.5}$, are generally emitted from activities such as industrial combustion, vehicle exhaust, and residential wood-burning stoves and fireplaces. Fine particles are also formed in the atmosphere when gases such as sulfur dioxide, nitrogen oxides, and volatile organic compounds, emitted by combustion activities, are transformed by chemical reactions in the air.

PM_{10} standards exist for 24-hour average concentrations as well as for annual mean concentrations to regulate both short-term and chronic pollutant exposure. As shown in Table 8-1, 22 violations of the state 24-hour PM_{10} standard were recorded at the Lincoln monitoring station between 1993 and 1996. No exceedances of the federal PM_{10} standard were recorded during this period. Placer County is considered to be a non-attainment area for the state PM_{10} standard, and is unclassified with respect to the less stringent federal PM_{10} standard.

EPA promulgated the $PM_{2.5}$ standard in 1997. A monitoring network to collect ambient $PM_{2.5}$ data is currently under construction in California; therefore, no data are yet available with respect to this new standard.

Nitrogen Dioxide

NO_2 is an indirect product of fuel combustion in industrial sources, motor vehicles, and other mobile sources (e.g., trains, airplanes, etc.). NO_2 concentrations in Placer County are well within state and federal standards.

Sulfur Dioxide

The major source of SO_2 emissions is fuel-burning equipment in which fuel oil and/or coal is consumed. Typical sources of SO_2 include power plants and steam generators; high SO_2 concentrations generally occur in proximity to these sources. SO_2 concentrations in Placer County are well within state and federal standards.

8.1.3 Existing Emission Sources

The CARB maintains an emission inventory to determine the sources of air pollution within the state's air basins, and to determine the quantities of pollutants emitted. Inventoried pollutants include total organic gases (TOG), ROG, CO, NO_X, SO_2, PM, and PM_{10}. Table 8-2 presents a summary of current pollutant emission data for Placer County. Mobile sources are a major source of ozone precursor (NO_X and ROG) emissions in Placer County and the broader Sacramento area; in Placer County, mobile sources account for more than 90 percent of county-wide NO_X emissions, and 55 percent of county-wide ROG emissions.

Transportation factors which contribute to an area's mobile source emissions include the population, the number of on-road vehicles in use, the average daily vehicle trips, and the average daily vehicle miles traveled. The average daily trips in a given area probably has the greatest effect on pollutant emissions. A large percentage of pollutant emissions, particularly ROG, occur during the first few minutes of vehicle operation, and while the vehicle engine is cooling down. Because this large portion of ROG emissions is generated by means that are unrelated to the vehicle running time, ROG emissions do not increase with direct proportion to trip lengths; some short trips could produce almost as much ROG as longer trips.

[3] Emissions estimates exclude emissions from that portion of Placer County which lies within the Lake Tahoe Air Basin.

8.2.1 Federal

Under federal law, a large region called the Sacramento Air Quality Maintenance Area, which includes Sacramento, and parts of Yolo, Placer (including the study area), and Solano Counties, has received a severe non-attainment designation for the federal ozone standard. Accordingly, these regions must solve their ozone problems jointly.

The Districts of the SVAB, including Placer County, have developed the 1994 Sacramento Area Regional Ozone Attainment Plan (1994 Plan), which identifies source controls and trip reduction strategies aimed at achieving the federal ozone standard by the year 2005. The attainment strategy requires reductions of approximately 38 percent of ROG and 40 percent of NO_X from 1990 baseline emissions. The strategy relies heavily on mobile source NO_X reductions, since mobile sources generate approximately 90 percent of regional NO_X emissions. The goal for attainment of federal standards is 2005; if Placer County does not achieve federal ambient air quality standards by the mandated deadline, the County may be subject to federal sanctions affecting transportation funding as well as U.S. EPA-mandated increased controls on industrial source emissions.

In 1997 EPA promulgated new ambient air quality standards for ozone and $PM_{2.5}$. The new ozone standard of 0.08 ppm applies to rolling eight-hour concentrations of ozone, whereas previous standards (which will not be superceded by the new standard until the old standard is attained) applied only to one-hour ozone concentrations. As described in Section 8.1.2, CARB has computed average eight-hour ozone concentrations measured at the Rocklin station based on historical one-hour measurements; these data indicate that ozone concentrations in the Rocklin area have exceeded 0.08 ppm in past years. No ambient $PM_{2.5}$ data are currently available in the study area, however a $PM_{2.5}$ monitoring network is under construction in California. Current plans call for a $PM_{2.5}$ monitoring station to be located on North Sunrise Boulevard in Roseville.

8.2.2 State

Under State law, areas are designated as attainment or non-attainment on a county-by-county basis; Placer County on the whole is designated as attainment / unclassified with respect to CO, and as a severe non-attainment area with respect to the state ozone standard. The 1988 California Clean Air Act requires non-attainment areas to develop plans aimed at achieving state ambient standards. Placer County has developed an Air Quality Attainment Plan (AQAP) outlining strategies for achieving the state ozone ambient standard. The AQAP outlines both stationary and mobile emission source control measures, and emphasizes Transportation Control Measures and Indirect Source Control Measures as means of reducing mobile source emissions in Placer County. Measures in the AQAP include:

- Area-wide carpool/vanpool matching and assistance;
- City or County trip reduction ordinances;
- In new developments, provision of bikeways and bicycling support facilities and pedestrian amenities such as sidewalks, adequate crosswalks, and building entries near sidewalks rather than behind large parking lots;
- Use of alternative motor fuels and energy sources;
- Jobs-housing balance requirement for new developments;
- Mixed land use requirement, i.e., residences, workplaces, and services located closely enough that private motorized transit between them would not be necessary;
- Transit service expansion and operational changes;
- Parking space limitations; and,
- Suburban fringe area park-and-ride lots.

8.2.3 Local

At a local level, air quality is managed through land use and development planning practices, which are implemented by Placer County, and through permitted source controls, which are implemented by the Placer County APCD. The Placer County APCD is also the agency responsible for enforcing many Federal and State air quality requirements, and for establishing air quality rules and regulations.

The Placer County General Plan Air Quality Element provides county-wide goals and policies aimed at improving air quality. Goals and policies in the Air Quality Element parallel those identified in state and federal plans applicable to Placer County. General Plan policies applicable to the proposed project include the following:

Policy 6.F.6: The County shall require project-level environmental review to include identification of potential air quality impacts and designation of design and other appropriate mitigation measures or offset fees to reduce impacts. The County shall dedicate staff to work with project proponents and other agencies in identifying, ensuring the implementation of, and monitoring the success of mitigation measures.

Policy 6.F.7: The county shall encourage development to be located and designed to minimize direct and indirect air pollutants

Policy 6.F.8: The County shall submit development proposals to the PCAPCD for review and comment in compliance with CEQA prior to consideration by the appropriate decision-making body.

Polity 6.F.9: In reviewing project applications, the County shall consider alternatives or amendments that reduce emissions of air pollutants.

Policy 6.F.10: The County may require new development projects to submit an air quality analysis for review and approval. Based on this analysis, the County shall require appropriate mitigation measures consistent with the PCAPCD's 1991 *Air Quality Attainment Plan* (or updated edition).

Policy 6.G.3: The County shall encourage the use of alternate forms of transportation by incorporating public transit, bicycle, and pedestrian modes in County transportation planning and by requiring new development to provide adequate pedestrian and bikeway facilities.

Policy 6.G.4: The County shall consider instituting disincentives for single-occupant vehicle trips, including limitation in parking supply in areas where alternative transportation modes are available and other measures identified by the Placer County APCD and incorporated into regional plans.

Policy 6.G.5: The County shall endeavor to secure adequate funding for transit services so that transit is a viable transportation alternative. New development shall pay its fair share of the cost of transit equipment and facilities required to serve new projects.

Policy 6.G.6: The County shall require large new developments to dedicate land for and construct appropriate improvements for park-and-ride lots, if suitably located.

The Placer County APCD through its enhanced CEQA review has developed mitigation thresholds and significance thresholds for project-generated air pollutant emissions. These thresholds apply to both short-term and long-term air pollutant emissions. Projects with the potential to generate emissions exceeding any of the District mitigation thresholds would be required to implement additional mitigation strategies to reduce emissions. Projects with the potential to generate emissions exceeding the District significance thresholds would have a significant air quality impact, and would also be required to implement mitigation. Table 8-3 presents Placer County APCD significance thresholds.

Table 8-3
Placer County APCD Significance Thresholds

Pollutant	Thresholds For Implementation Of Mitigation Measures (lb/day)	Significance Thresholds (lb/day)
Reactive Organic Gasses (ROG)	10	82
Nitrogen Oxides (NO_x)	10	82
Sulfur Oxides	10	136
Particulate Matter (PM_{10})	82	82
Carbon Monoxide (CO)	550	550

Source: PCAPCD, 1998

8.3 IMPACTS

This section identifies and discusses the environmental impacts resulting from the proposed project and suggests mitigation measures to reduce the level of impact. A detailed discussion of mitigation measures is included in Section 8.4.

State CEQA Guidelines state that a project would normally have a significant adverse air quality impact if project-generated pollutant emissions would: cause a violation of an ambient air quality standard or worsen an existing violation; contribute substantially to an existing or projected air quality violation; expose sensitive receptors to substantial pollutant concentrations; or conflict with adopted environmental plans, policies, or regulations for air pollutants (CEQA Guidelines, 1995, 1998).

Potential significant impacts associated with air quality have been evaluated using the following criteria:

- Proposed project emissions cause or contribute to a localized exceedence of an air quality standard. Table 8-1 provides a summary of state and federal ambient standards;
- Proposed project emissions exceed any of the Placer County APCD significance criteria; or
- The proposed project conflicts with the policies identified in the Air Quality Element of the Placer County General Plan or the goals of the Air Quality Attainment Plan.

The proposed project could affect air quality during both construction and operation phases. Construction activities could result in criteria pollutant emissions through earthmoving activities, application of architectural coatings, and vehicle and equipment exhaust emissions. Proposed project operation would result in criteria pollutant emissions primarily from vehicular sources; however, landscape maintenance equipment, residential heating sources (natural gas heaters, fireplaces, and wood stoves), and other miscellaneous activities would also generate pollutant emissions. Emissions from proposed project construction and operation could contribute to both regional pollutant emissions and localized pollutant concentrations.

8.0 AIR QUALITY

8.1 ENVIRONMENTAL SETTING

Ambient air quality is generally determined by climatological conditions, the topography of the air basin, and the type and amounts of pollutants emitted. The Bickford Ranch Specific Plan area is subject to a combination of topographical and climatic factors which result in high potential for regional and local pollutant accumulation. The following discussion describes relevant characteristics of the air basin, and provides an overview of physical conditions affecting pollutant accumulation and dispersion in the study area. The air quality setting also describes the sources, types, and health effects of major air pollutants.

8.1.1 Climate and Topography

The study area is located in the Sacramento Valley Air Basin (SVAB), within the western third of Placer County. The mountain ranges which hem the SVAB influence wind directions and speeds in the Sacramento Valley; the Coast Range lies west of the SVAB, the Sierra Nevada lies to the east, and the Cascade range is north and east of the valley. These ranges channel winds through the Sacramento Valley, affecting the dispersion of air pollutants. Typically, marine air enters the Sacramento Valley through the Carquinez Strait and the Cordelia Gap in the Coast Range. Air flows from the south through the urban Sacramento area, pushing pollutants and their precursors north and east toward northern SVAB counties and the Mountain Counties Air Basin.

Temperature inversions occur frequently in the Sacramento Valley; typically, inversions occur when the sun heats upper layers of air, and cooler layers of air are trapped close to the ground. Local pollutants are also trapped within this layer, as inversions inhibit vertical air dispersion. Inversions occur frequently throughout the year in the study area, although they are most severe (in terms of limited ventilation) during the late summer and fall months.

Sacramento Valley weather is characterized by hot, dry summers and mild, wet winters. With clear skies and warm temperatures between May and October, the broader Sacramento area has a high potential for ozone accumulation.[1] During winter months, calm conditions and poor ventilation dominate the late evening and early morning atmosphere; these conditions are conducive to local carbon monoxide (CO) accumulation (CARB, 1974).

8.1.2 Air Quality Standards and Existing Concentrations

Both federal and state governments have established standards for ambient pollutant concentrations. National and California standards have focused on six primary pollutants, called "criteria" air pollutants because such criteria have been set for them: ozone, CO, suspended particulate matter (PM), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead. In the Sacramento area, CO and ozone are of particular concern, although the area also experiences high PM concentrations. Air quality regulations are discussed in Section 8.2 below.

Counties and metropolitan areas are classified as attainment or non-attainment with respect to state and federal ambient pollutant standards. An area's classification is determined by comparing actual monitored air pollutant concentrations with state and federal standards. Air pollutant monitoring stations

[1] The broader Sacramento area, for the purposes of this Draft EIR, consists of those areas in the lower portion of the Sacramento Valley Air Basin, including Sacramento, Yolo, Sutter, and parts of Solano and Placer Counties.

Placer County Environmental Health Services

Memorandum

To: Kathy Kerdus, Planning Director

CC: Roger Davies

From: Allison Carlos, Supervisor
Land Use and Water Resources Section

Date: February 28, 2000

Re: Loomis General Plan - Review of draft General Plan

Environmental Health Services has reviewed the referenced document and makes the following comments.

Noise

- The noise section should reflect a standard use of noise descriptors. Typically, in California, the stationary noise descriptors used for performance and evaluation standards are Leq and Lmax. This document proposes the 24-hour standard of Ldn for stationary noises. Although the Placer County General Plan reflects the use of Ldn for stationary noise, this was an eleventh hour change at the Board of Supervisors hearing to attempt to address a large industrial area of the County. The use of other standard descriptors for the Town of Loomis environment would seem appropriate.

- The noise section does not appear to have been developed based upon the analysis of the current and projected future noise levels, including: current ambient, industrial and manufacturing, major roadways, freeways, and aircraft flight zones. These types of analyses, which should include collection of data, is commonly completed by a consultant as part of the preparation of a general plan.

  The data that was provided in the document does not include future levels. Additionally, the railroad noise levels appear to be based upon old train daily trips data.

March 1, 2000

Public sewer service

- Page 79, number 4: The policies relative to connection to public water and sewer service are appropriately supportive of connection of non residential and higher density developments on these public services. It is especially encouraging to see the Town require public sewer and water services in the commercial areas east of Interstate 80. Please note, although 2.3 acres has been traditional parcel minimum size of on site treatment systems, in the Town of Loomis area, there are high groundwater conditions that will are not conducive to on site treatment systems installation. Likewise, there may be conditions of low individual water well yield within the more rural areas that may not support major development. Additional policies that the Town may want to consider these additional policies.

-The Town of Loomis shall require proponents of new developments to demonstrate the availability of a long-term, reliable water supply. The Town shall reqire written certification from the service provider that either existing services are available or needed improvements will be made prior to occupancy.

-Where groundwater is proposed, adequate test wells, appropriate reports, and/or report(s) from a qualified professional will be required substantiating long-term availability of suitable groundwater.

-Urban and suburban development should rely on public water systems using surface water.

-The Town of Loomis shalll require proponents of new development within a sewer service area to provide written certification from the service provider that either existing services are available or needed improvements will be made prior to occupancy.

-The Town shall discourage the development of residneces or schools near known hazardous waste disposal or handling facilities.

Attachment

Private Wells. Portions of the Loomis community do not have access to the PCWA's distribution system and are supplied by private wells. The rural residential properties along Barton Road are within the largest area in Loomis not served by the PCWA. Groundwater distribution in the planning area is sporadic and well yield is highly variable. The average production of wells in the area is 4 to 9 gallons per minute. Water quality varies with the source. Granitic rock wells provide the best water quality in the area and many of the area's wells are of this type. Wells overlying alluvial deposits vary from low to moderate quality. Many wells in the area experience iron and manganese contamination, sometimes associated with low yield. Please refer to Section 4.2.3, *Groundwater*, for further discussion of this issue.

Wastewater

Most of the planning area is connected to wastewater collection infrastructure, a service provided by the South Placer Municipal Utility District (SPMUD). North of Interstate 80, the Town is served by sewer lines ranging from six to 12 inches in diameter. The primary service line is a 15-inch pipe near Taylor Road, known as the Lower Loomis Trunk Sewer. South of the freeway, the Middle Secret Ravine Trunk extends to Barton Road and a tributary pipe network serves portions of the community in this area.

The SPMUD Sewer Master Plan (1986) identifies the need for an 18-inch Middle Antelope Creek Trunk Sewer to serve future development in the western portion of the community. SPMUD would extend this trunk northward along the general alignment of Antelope Creek as growth requires. This plan would be most easily implemented if growth occurred from south to north along this corridor, so infrastructure could be extended logically.

The trunk sewer system collects wastewater from residential and commercial uses and transports it to the Roseville Regional Wastewater Treatment Plant (RRWWTP). The RRWWTP currently treats an inflow of about 13 million gallons per day (mgd), and was recently expanded to accommodate up to 18 mgd.

Some of the wastewater in the planning area is treated by on-site private septic systems, particularly within larger rural residential lots on the periphery of the planning area, especially (but not exclusively) in unincorporated areas. Some septic systems in the area have a history of discharge and maintenance problems. However, because the placement and maintenance of septic systems is up to private individuals and not public agencies, issues related to septic systems are discussed in more detail in Sections 4.2 and 4.3 of this report, *Water Resources* and *Soil and Mineral Resources*, respectively.

Drainage & Flood Control

The planning area is within the Dry Creek watershed, which covers about 101 square miles in Placer and Sacramento counties. Antelope Creek, Secret Ravine, and their tributaries are the primary drainages in the area.

The Placer County Flood Control and Water Conservation District (PCFCWCD) is responsible for developing flood control management strategies within the County. The Dry Creek Watershed Flood Control Plan (James M. Montgomery, 1992) prepared for the PCFCWCD and the Sacramento County Water Agency addresses flood control within the watershed, and suggests the following development principles:

- New development should provide on-site detention;
- Local policies should be implemented to restrict the removal of riparian vegetation along channels;
- Regional detention basins should be constructed;
- Inadequate bridges and culverts should be replaced; and
- Procedures for flood preparedness should be formulated.

The Town of Loomis Resolution 97-70 establishes an agreement between PCFCWCD and the Town to coordinate the development, support and operation of PCFCWCD facilities. Within the planning area, the

cc: CRAUFORD
RICKENBT

Placer County Water Agency

Business Center: 144 Ferguson Rd. • Mail: P.O. Box 6570 • Auburn, California 95604
(530) 823-4850 800-464-0030 TDD (530) 823-4966

A Public Agency

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Ed Tiedemann, General Counsel

March 7, 2000
File No. WA/Loomis

RECEIVED
MAR 10 2000
TOWN OF LOOMIS

Kathy Kerdus, Planning Director
Town of Loomis
Planning Department
6140 Horseshoe Bar Road, Ste. K
Loomis, CA 95650

SUBJECT: Draft of Towns proposed General Plan Update (portion)

Dear Ms. Kerdus:

This letter is written in response to your February 14, 2000 Fax request for comments on a portion of the Towns proposed general plan update.

The water supply figures shown in Table 5-2 are correct with the exception of the Bureau of Reclamation contracted figure of 117,000-acre feet per year (AFY). The available water supply to the Agency from the Bureau of Reclamation is 35,000 AFY prior to the completion of an Auburn Dam. The Agency's ability to pump it's water supplies from the American-Rubicon rivers is limited to the capacity of the temporary pumps that are installed and removed by the Bureau of Reclamation each year. A permanent pump station in the American River is needed to allow the Agency to fully access its water supply.

The Agency now operates four water treatment plants in the Agency's Zone No. 1 service area. The old Newcastle water treatment plant has been abandoned. The Foothill water treatment plant capacity of 27 million gallons per day (mgd) is currently being expanded in phases. Utilizing new plant process technology the design capacity at build out of this plant is now approximately 55 mgd.

Since your previous general plan the Agency has added 10 million gallons (mg) of clearwell storage at it's Foothill water treatment plant. The Agency is currently increasing its system storage capabilities in Newcastle with a 1 mg tank and adjacent to the Sunset Water Treatment Plant at the boarder between the Cities of Rocklin and Lincoln, a 10 mg tank with provisions for an another 10 mg tank in the future. The old unused 120,000 elevated storage tank on Taylor Road has been abandoned and removed.

If you have any questions, please call me at the Engineering Department at (530) 823-4886.

Sincerely,

Dave Campbell
Engineering Technician

DPC:hs
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CC: STAFFORD
RICKENBACH

PLACER COUNTY AIR POLLUTION CONTROL DISTRICT

11464 B Avenue, Auburn, CA 95603 • (530) 889-7130 • Fax (530) 889-7107

Richard G. Johnson, Air Pollution Control Officer

FAX

To:	Kathy Kerdus	**Date:**	March 7, 2000
Fax #:	916.652.1847	**Pages:**	9, including this cover sheet.
From:	Dave Vintze		
Subject:	Draft General Plan Update		

Kathy - Due to your time constraints and my work load, I would recommend that you use the "Regulatory Setting" information from the Bickford Ranch DEIR. It is more accurate on current air quality regulation than the existing information that you faxed to me. I will continue to send you information that I think you can use during your general plan update and hearings.

Please call me at (530) 889-7131 if you have any questions or need any specific information that I have not provided. Please try and give me as much lead time as possible, and I will try and get things to you in a timely manner.

Thanks

Dave

[T:\APC\DV\CEQA\LOOMIS\KKERDUS.GP]

8.0 AIR QUALITY

8.1 ENVIRONMENTAL SETTING

Ambient air quality is generally determined by climatological conditions, the topography of the air basin, and the type and amounts of pollutants emitted. The Bickford Ranch Specific Plan area is subject to a combination of topographical and climatic factors which result in high potential for regional and local pollutant accumulation. The following discussion describes relevant characteristics of the air basin, and provides an overview of physical conditions affecting pollutant accumulation and dispersion in the study area. The air quality setting also describes the sources, types, and health effects of major air pollutants.

8.1.1 Climate and Topography

The study area is located in the Sacramento Valley Air Basin (SVAB), within the western third of Placer County. The mountain ranges which hem the SVAB influence wind directions and speeds in the Sacramento Valley; the Coast Range lies west of the SVAB, the Sierra Nevada lies to the east, and the Cascade range is north and east of the valley. These ranges channel winds through the Sacramento Valley, affecting the dispersion of air pollutants. Typically, marine air enters the Sacramento Valley through the Carquinez Strait and the Cordelia Gap in the Coast Range. Air flows from the south through the urban Sacramento area, pushing pollutants and their precursors north and east toward northern SVAB counties and the Mountain Counties Air Basin.

Temperature inversions occur frequently in the Sacramento Valley; typically, inversions occur when the sun heats upper layers of air, and cooler layers of air are trapped close to the ground. Local pollutants are also trapped within this layer, as inversions inhibit vertical air dispersion. Inversions occur frequently throughout the year in the study area, although they are most severe (in terms of limited ventilation) during the late summer and fall months.

Sacramento Valley weather is characterized by hot, dry summers and mild, wet winters. With clear skies and warm temperatures between May and October, the broader Sacramento area has a high potential for ozone accumulation.[1] During winter months, calm conditions and poor ventilation dominate the late evening and early morning atmosphere; these conditions are conducive to local carbon monoxide (CO) accumulation (CARB, 1974).

8.1.2 Air Quality Standards and Existing Concentrations

Both federal and state governments have established standards for ambient pollutant concentrations. National and California standards have focused on six primary pollutants, called "criteria" air pollutants because such criteria have been set for them: ozone, CO, suspended particulate matter (PM), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead. In the Sacramento area, CO and ozone are of particular concern, although the area also experiences high PM concentrations. Air quality regulations are discussed in Section 8.2 below.

Counties and metropolitan areas are classified as attainment or non-attainment with respect to state and federal ambient pollutant standards. An area's classification is determined by comparing actual monitored air pollutant concentrations with state and federal standards. Air pollutant monitoring stations

[1] The broader Sacramento area, for the purposes of this Draft EIR, consists of those areas in the lower portion of the Sacramento Valley Air Basin, including Sacramento, Yolo, Sutter, and parts of Solano and Placer Counties.

are operated throughout the broader Sacramento area by the California Air Resources Board (CARB) and assorted air districts. The two air monitoring stations currently operating closest to the proposed project site are CARB's Rocklin station, about six miles south of the proposed project site, and the Lincoln station approximately three miles west of the project site. The Rocklin station collects both particulate and gaseous pollutant monitoring data. The Lincoln station collects only particulate monitoring data. Other monitoring stations near the study area are located on North Sunrise Avenue in Roseville, about 11 miles south of the proposed project site, and in North Highlands in Sacramento County, approximately 14 miles southwest of the proposed project site. Table 8-1 presents a summary of CO, ozone, and PM_{10} (particulate matter with diameter between 2.5 and 10 microns) data collected at the Rocklin station in recent years.

Table 8-1
Ambient Air Quality Standards and Maximum Measured Concentrations
(Rocklin, 1992-1996)

Pollutant	Federal Standard	992	Maximum Measured Concentration[2]				
			1993	1994	1995	1996	1997
Carbon Monoxide							
One-hour maximum concentration (ppm)[2]	35	20.0	4	5	3	3	**[5]
Number of federal standard violations				0	0	0	**
Number of state standard violations				0	0	0	**
Eight-hour maximum concentration (ppm)	9	9.0	2.3	2.3	1.6	1.6	**
Number of federal standard violations				0	0	0	**
Number of state standard violations				0	0	0	**
Ozone							
One-hour maximum concentration (ppm)	0.12	0.09	0.15	0.13	0.15	0.13	0.11
Number of federal standard violations				3	1	3	0
Number of state standard violations				21	29	25	9
Eight-hour maximum concentration (ppm)	0.08	N/A[3]	0.12	0.11	0.11	*[4]	*
Number of federal standard violations				9	20	19	*
Respirable Particulates (PM_{10})							
24-hour maximum concentration ($\mu g/m^3$)[5]	150	50	58	79	87	**[5]	66
Number of federal standard violations			0	0	0	**	0
Number of state standard violations			3		13	**	4
Annual Arithmetic Mean ($\mu g/m^3$)	50	N/A	29.6	24.2	39.5	**	21.9
Annual Geometric Mean ($\mu g/m^3$)	N/A	30	25.8	24.5	34.3	**	15.7
Fine Particulates ($PM_{2.5}$)							
24-hour maximum concentration ($\mu g/m^3$)	65	*	*	*	*	*	*
Number of federal standard violations			*	*	*	*	*
Annual Arithmetic Mean ($\mu g/m^3$)	15	*	*	*	*	*	*

Notes:

[1] CO and ozone monitoring data collected at CARB's Rocklin monitoring station. Particulate data collected at the Lincoln monitoring station.

[2] ppm = parts per million

[3] N/A = Not Applicable – No standard promulgated

[4] * = Monitoring data not yet available. EPA implemented the $PM_{2.5}$ and the eight-hour ozone standards in 1997. A history of eight-hour monitoring data for ozone were made available by CARB for monitoring years 1992-1995; a $PM_{2.5}$ monitoring network is currently under construction throughout California.

[5] $\mu g/m^3$ = micrograms per cubic meter

[6] ** = No data reported.

Source: California Air Resources Board, California Air Quality Data (1992-1996)

Ozone

Ozone concentrations in western Placer County typically exceed state and federal standards many times during the year, as shown by monitoring data in Table 8-1. Because these standard violations occur throughout the broader Sacramento area, EPA has designated the Sacramento Air Quality Maintenance Area, an area spanning the broader Sacramento area including western Placer County, as non-attainment area with respect to the federal one-hour ozone standard. Placer County is also designated as a non-attainment area for the state ozone standard.

Ozone is formed in the atmosphere in the presence of sunlight by a series of chemical reactions involving oxides of nitrogen (NO_X) and reactive organic gases (ROG). Because these reactions occur on a regional scale, ozone is considered a regional air pollutant. A primary constituent of smog, ozone causes eye and lung irritation, visibility reduction, and crop damage. Sensitive receptors exposed to high ozone concentrations may suffer from reduced resistance to lung infection, eye irritation, and shortness of breath. Vehicular exhaust is the major source of ozone precursors in the Sacramento area.

Table 8-1 shows that the state ozone standard was exceeded on 146 days between 1992 and 1996 at the Rocklin monitoring station; the federal one-hour ozone standard was violated 15 times during this period. Although EPA only recently promulgated the eight-hour ozone standard of 0.08 parts per million (ppm), historical data indicate that ozone concentrations in the Rocklin area have exceeded the new federal standard. Ozone is a regional air pollutant, thus monitored concentrations at the Rocklin station are considered representative of ozone concentrations in the study area.

Carbon Monoxide

CO standards exist for both one- and eight-hour average concentrations to regulate both short-term and extended-term pollutant exposure. Placer County has been designated as unclassified with respect to state CO standards, and has recently been classified as attainment with respect to federal one- and eight-hour CO concentration standards.

CO is a local pollutant caused primarily through incomplete fuel combustion; vehicular exhaust is the major source of CO in Placer County; however, residential wood stoves and fireplaces also contribute substantially to CO emissions. CO concentrations are highest near heavily traveled roadways, and particularly near intersections. Vehicular CO emissions increase as ambient temperature and average vehicle speed decrease, causing worst-case CO concentrations during winter months and in areas of heavy traffic congestion. High levels of CO can impair the transport of oxygen in the bloodstream and thereby aggravate cardiovascular disease and cause fatigue, headaches, and dizziness.

Table 8-1 shows that neither the state nor the federal eight-hour CO standard was violated between 1992 and 1996 at the Rocklin monitoring station.

Particulate Matter

Airborne particulate matter is generally composed of minute separate particles in the air such as dust soot, aerosols, fumes, and mists. The particles of primary concern are inhalable particulates. The characteristics, sources, and potential health effects of larger, or "coarse" particles (from 2.5 to 10 micrometers in diameter) and smaller or "fine" particles (smaller than 2.5 micrometers in diameter) are very different. Coarse particles, or PM_{10}, are generated by sources such as windblown dust, agricultura

[2] Oxides of nitrogen include NO_2.

fields, and dust from vehicular traffic on unpaved roads. Fine particles, or $PM_{2.5}$, are generally emitted from activities such as industrial combustion, vehicle exhaust, and residential wood-burning stoves and fireplaces. Fine particles are also formed in the atmosphere when gases such as sulfur dioxide, nitrogen oxides, and volatile organic compounds, emitted by combustion activities, are transformed by chemical reactions in the air.

PM_{10} standards exist for 24-hour average concentrations as well as for annual mean concentrations to regulate both short-term and chronic pollutant exposure. As shown in Table 8-1, 22 violations of the state 24-hour PM_{10} standard were recorded at the Lincoln monitoring station between 1993 and 1996. No exceedances of the federal PM_{10} standard were recorded during this period. Placer County is considered to be a non-attainment area for the state PM_{10} standard, and is unclassified with respect to the less stringent federal PM_{10} standard.

EPA promulgated the $PM_{2.5}$ standard in 1997. A monitoring network to collect ambient $PM_{2.5}$ data is currently under construction in California; therefore, no data are yet available with respect to this new standard.

Nitrogen Dioxide

NO_2 is an indirect product of fuel combustion in industrial sources, motor vehicles, and other mobile sources (e.g., trains, airplanes, etc.). NO_2 concentrations in Placer County are well within state and federal standards.

Sulfur Dioxide

The major source of SO_2 emissions is fuel-burning equipment in which fuel oil and/or coal is consumed. Typical sources of SO_2 include power plants and steam generators; high SO_2 concentrations generally occur in proximity to these sources. SO_2 concentrations in Placer County are well within state and federal standards.

8.1.3 Existing Emission Sources

The CARB maintains an emission inventory to determine the sources of air pollution within the state's air basins, and to determine the quantities of pollutants emitted. Inventoried pollutants include total organic gases (TOG), ROG, CO, NO_X, SO_2, PM, and PM_{10}. Table 8-2 presents a summary of current pollutant emission data for Placer County. Mobile sources are a major source of ozone precursor (NO_X and ROG) emissions in Placer County and the broader Sacramento area; in Placer County, mobile sources account for more than 90 percent of county-wide NO_X emissions, and 55 percent of county-wide ROG emissions.

Transportation factors which contribute to an area's mobile source emissions include the population, the number of on-road vehicles in use, the average daily vehicle trips, and the average daily vehicle miles traveled. The average daily trips in a given area probably has the greatest effect on pollutant emissions. A large percentage of pollutant emissions, particularly ROG, occur during the first few minutes of vehicle operation, and while the vehicle engine is cooling down. Because this large portion of ROG emissions is generated by means that are unrelated to the vehicle running time, ROG emissions do not increase with direct proportion to trip lengths; some short trips could produce almost as much ROG as longer trips.

[1] Emissions estimates exclude emissions from that portion of Placer County which lies within the Lake Tahoe Air Basin.

Table 8-2
1996 Estimated Average Emissions – Placer County

Source Category	Pollutant Emissions (Tons/Day)						
	TOG	ROG	CO	NO_X	SO_2	PM	PM_{10}
STATIONARY SOURCES							
Fuel Combustion	0	0	1.8	1.3	0.1	0.3	0.3
Other Industrial Processes[1]	8.7	6.7	0	0.1	0	1.5	0.9
Total Stationary Sources	8.7	6.7	1.8	1.3	0.1	1.8	1.2
AREA SOURCES							
Solvent Evaporation	3.5	3.4	0	0	0	0	0
Miscellaneous Processes	6.7	3.3	51.7	1	0.1	31	19.1
Total Area Sources	10.2	6.7	51.7	1	0.1	31	19.1
MOBILE SOURCES							
On-Road Vehicles	15.9	14	135.9	19.3	0.3	0.7	0.6
Other Mobile	3.6	3.5	26.1	7.7	0.4	0.4	0.4
Total Mobile Sources	19.5	17.5	162	27	0.7	1.1	1.0
NATURAL (NON-ANTHROPOGENIC) SOURCES							
Total Natural Sources	0.1	0.1	1.1	0	0	0.2	0.2
Total Placer County	**38**	**31**	**217**	**29**	**1**	**34**	**22**

Notes:
[1] Emissions are primarily from construction and demolition activities, entrained road dust, and waste disposal.
Source: CARB, 1998a.

8.2 REGULATORY SETTING

Air quality in the study area is regulated by several agencies including EPA, CARB, and the Placer County Air Pollution Control District (APCD). Each of these agencies develop rules and/or regulations to attain various air quality goals. Although EPA regulations may not be superseded, both State and local regulations may be more stringent than federal air quality regulations. In general, state and federal agencies are responsible for regulating emissions from on-road and off-road vehicles and establishing air quality standards; local APCDs are responsible for implementing state and federal air quality regulations, permitting stationary sources of air pollution, and developing plans aimed at attaining ambient air quality standards. Emissions from indirect sources, such as automobile traffic associated with development projects, are addressed through APCD air quality plans.

Air quality is sometimes regulated on a county-by-county basis and sometimes on a regional (e.g., basin-wide) basis. This distinction is particularly relevant in Placer County, which spans three air basins in California: the southwestern third of the county lies within the SVAB; the northernmost portion of Placer County is within the Lake Tahoe Air Basin; and the remainder is within the Mountain Counties Air Basin. Because portions of Placer County lie within the SVAB, the District coordinates with other SVAB air districts to resolve basin-wide air pollution problems.

Placer County's General Plan contains policies governing development within Placer County. The policies relating to air quality are identified in the General Plan Consistency discussion in Section 8.3.

8.2.1 Federal

Under federal law, a large region called the Sacramento Air Quality Maintenance Area, which includes Sacramento, and parts of Yolo, Placer (including the study area), and Solano Counties, has received a severe non-attainment designation for the federal ozone standard. Accordingly, these regions must solve their ozone problems jointly.

The Districts of the SVAB, including Placer County, have developed the 1994 Sacramento Area Regional Ozone Attainment Plan (1994 Plan), which identifies source controls and trip reduction strategies aimed at achieving the federal ozone standard by the year 2005. The attainment strategy requires reductions of approximately 38 percent of ROG and 40 percent of NO_X from 1990 baseline emissions. The strategy relies heavily on mobile source NO_X reductions, since mobile sources generate approximately 90 percent of regional NO_X emissions. The goal for attainment of federal standards is 2005; if Placer County does not achieve federal ambient air quality standards by the mandated deadline, the County may be subject to federal sanctions affecting transportation funding as well as U.S. EPA-mandated increased controls on industrial source emissions.

In 1997 EPA promulgated new ambient air quality standards for ozone and $PM_{2.5}$. The new ozone standard of 0.08 ppm applies to rolling eight-hour concentrations of ozone, whereas previous standards (which will not be superceded by the new standard until the old standard is attained) applied only to one-hour ozone concentrations. As described in Section 8.1.2, CARB has computed average eight-hour ozone concentrations measured at the Rocklin station based on historical one-hour measurements; these data indicate that ozone concentrations in the Rocklin area have exceeded 0.08 ppm in past years. No ambient $PM_{2.5}$ data are currently available in the study area, however a $PM_{2.5}$ monitoring network is under construction in California. Current plans call for a $PM_{2.5}$ monitoring station to be located on North Sunrise Boulevard in Roseville.

8.2.2 State

Under State law, areas are designated as attainment or non-attainment on a county-by-county basis; Placer County on the whole is designated as attainment / unclassified with respect to CO, and as a severe non-attainment area with respect to the state ozone standard. The 1988 California Clean Air Act requires non-attainment areas to develop plans aimed at achieving state ambient standards. Placer County has developed an Air Quality Attainment Plan (AQAP) outlining strategies for achieving the state ozone ambient standard. The AQAP outlines both stationary and mobile emission source control measures, and emphasizes Transportation Control Measures and Indirect Source Control Measures as means of reducing mobile source emissions in Placer County. Measures in the AQAP include:

- Area-wide carpool/vanpool matching and assistance;
- City or County trip reduction ordinances;
- In new developments, provision of bikeways and bicycling support facilities and pedestrian amenities such as sidewalks, adequate crosswalks, and building entries near sidewalks rather than behind large parking lots;
- Use of alternative motor fuels and energy sources;
- Jobs-housing balance requirement for new developments;
- Mixed land use requirement, i.e., residences, workplaces, and services located closely enough that private motorized transit between them would not be necessary;
- Transit service expansion and operational changes;
- Parking space limitations; and,
- Suburban fringe area park-and-ride lots.

8.2.3 Local

At a local level, air quality is managed through land use and development planning practices, which are implemented by Placer County, and through permitted source controls, which are implemented by the Placer County APCD. The Placer County APCD is also the agency responsible for enforcing many Federal and State air quality requirements, and for establishing air quality rules and regulations.

The Placer County General Plan Air Quality Element provides county-wide goals and policies aimed at improving air quality. Goals and policies in the Air Quality Element parallel those identified in state and federal plans applicable to Placer County. General Plan policies applicable to the proposed project include the following:

Policy 6.F.6: The County shall require project-level environmental review to include identification of potential air quality impacts and designation of design and other appropriate mitigation measures or offset fees to reduce impacts. The County shall dedicate staff to work with project proponents and other agencies in identifying, ensuring the implementation of, and monitoring the success of mitigation measures.

Policy 6.F.7: The county shall encourage development to be located and designed to minimize direct and indirect air pollutants

Policy 6.F.8: The County shall submit development proposals to the PCAPCD for review and comment in compliance with CEQA prior to consideration by the appropriate decision-making body.

Polity 6.F.9: In reviewing project applications, the County shall consider alternatives or amendments that reduce emissions of air pollutants.

Policy 6.F.10: The County may require new development projects to submit an air quality analysis for review and approval. Based on this analysis, the County shall require appropriate mitigation measures consistent with the PCAPCD's 1991 *Air Quality Attainment Plan* (or updated edition).

Policy 6.G.3: The County shall encourage the use of alternate forms of transportation by incorporating public transit, bicycle, and pedestrian modes in County transportation planning and by requiring new development to provide adequate pedestrian and bikeway facilities.

Policy 6.G.4: The County shall consider instituting disincentives for single-occupant vehicle trips, including limitation in parking supply in areas where alternative transportation modes are available and other measures identified by the Placer County APCD and incorporated into regional plans.

Policy 6.G.5: The County shall endeavor to secure adequate funding for transit services so that transit is a viable transportation alternative. New development shall pay its fair share of the cost of transit equipment and facilities required to serve new projects.

Policy 6.G.6: The County shall require large new developments to dedicate land for and construct appropriate improvements for park-and-ride lots, if suitably located.

The Placer County APCD through its enhanced CEQA review has developed mitigation thresholds and significance thresholds for project-generated air pollutant emissions. These thresholds apply to both short-term and long-term air pollutant emissions. Projects with the potential to generate emissions exceeding any of the District mitigation thresholds would be required to implement additional mitigation strategies to reduce emissions. Projects with the potential to generate emissions exceeding the District significance thresholds would have a significant air quality impact, and would also be required to implement mitigation. Table 8-3 presents Placer County APCD significance thresholds.

Table 8-3
Placer County APCD Significance Thresholds

Pollutant	Thresholds For Implementation Of Mitigation Measures (lb/day)	Significance Thresholds (lb/day)
Reactive Organic Gasses (ROG)	10	82
Nitrogen Oxides (NO_x)	10	82
Sulfur Oxides	10	136
Particulate Matter (PM_{10})	82	82
Carbon Monoxide (CO)	550	550

Source: PCAPCD, 1998

8.3 IMPACTS

This section identifies and discusses the environmental impacts resulting from the proposed project and suggests mitigation measures to reduce the level of impact. A detailed discussion of mitigation measures is included in Section 8.4.

State CEQA Guidelines state that a project would normally have a significant adverse air quality impact if project-generated pollutant emissions would: cause a violation of an ambient air quality standard or worsen an existing violation; contribute substantially to an existing or projected air quality violation; expose sensitive receptors to substantial pollutant concentrations; or conflict with adopted environmental plans, policies, or regulations for air pollutants (CEQA Guidelines, 1995, 1998).

Potential significant impacts associated with air quality have been evaluated using the following criteria:

- Proposed project emissions cause or contribute to a localized exceedence of an air quality standard. Table 8-1 provides a summary of state and federal ambient standards;
- Proposed project emissions exceed any of the Placer County APCD significance criteria; or
- The proposed project conflicts with the policies identified in the Air Quality Element of the Placer County General Plan or the goals of the Air Quality Attainment Plan.

The proposed project could affect air quality during both construction and operation phases. Construction activities could result in criteria pollutant emissions through earthmoving activities, application of architectural coatings, and vehicle and equipment exhaust emissions. Proposed project operation would result in criteria pollutant emissions primarily from vehicular sources; however, landscape maintenance equipment, residential heating sources (natural gas heaters, fireplaces, and wood stoves), and other miscellaneous activities would also generate pollutant emissions. Emissions from proposed project construction and operation could contribute to both regional pollutant emissions and localized pollutant concentrations.

APPENDIX B

Noise Calculations

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: Interstate 80 (Horseshoe Bar to Penryn) -- Existing

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	78.3 dBA	167	360	776	1672	3603
Existing + Project	78.3 dBA	167	360	776	1672	3603
Future with Ambient Growth	78.3 dBA	166	357	769	1656	3567
Future with Ambient Growth and Project	78.3 dBA	166	357	769	1656	3567
Future with Ambient Growth and Cumulative Projects	78.3 dBA	166	357	769	1656	3567
Future with Ambient, Cumulative, and Project Growth	78.3 dBA	166	357	769	1656	3567
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	-0.1 dBA					
Due to Ambient and Cumulative	-0.1 dBA					
Due to All Future Growth	-0.1 dBA					

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	78.7 dBA	176	378	815	1756	3783
Existing + Project	78.7 dBA	176	378	815	1756	3783
Future with Ambient Growth	78.6 dBA	174	375	807	1738	3745
Future with Ambient Growth and Project	78.6 dBA	174	375	807	1738	3745
Future with Ambient Growth and Cumulative Projects	78.6 dBA	174	375	807	1738	3745
Future with Ambient, Cumulative, and Project Growth	78.6 dBA	174	375	807	1738	3745
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	-0.1 dBA					
Due to Ambient and Cumulative	-0.1 dBA					
Due to All Future Growth	-0.1 dBA					

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: Interstate 80 (Horseshoe Bar to Penryn) - Future

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	80.2 dBA	223	480	1034	2227	4799
Existing + Project	80.2 dBA	223	480	1034	2227	4799
Future with Ambient Growth	80.2 dBA	223	480	1034	2227	4799
Future with Ambient Growth and Project	80.2 dBA	223	480	1034	2227	4799
Future with Ambient Growth and Cumulative Projects	80.2 dBA	223	480	1034	2227	4799
Future with Ambient, Cumulative, and Project Growth	80.2 dBA	223	480	1034	2227	4799
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	80.5 dBA	234	504	1085	2339	5038
Existing + Project	80.5 dBA	234	504	1085	2339	5038
Future with Ambient Growth	80.5 dBA	234	504	1085	2339	5038
Future with Ambient Growth and Project	80.5 dBA	234	504	1085	2339	5038
Future with Ambient Growth and Cumulative Projects	80.5 dBA	234	504	1085	2339	5038
Future with Ambient, Cumulative, and Project Growth	80.5 dBA	234	504	1085	2339	5038
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: Interstate 80 (Sierra College to Horseshoe Bar) " Existing

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	78.7 dBA	176	379	816	1757	3785
Existing + Project	78.7 dBA	176	379	816	1757	3785
Future with Ambient Growth	78.6 dBA	174	375	807	1740	3748
Future with Ambient Growth and Project	78.6 dBA	174	375	807	1740	3748
Future with Ambient Growth and Cumulative Projects	78.6 dBA	174	375	807	1740	3748
Future with Ambient, Cumulative, and Project Growth	78.6 dBA	174	375	807	1740	3748

Change in Noise Levels	
Due to Project	0.0 dBA
Due to Ambient Growth	-0.1 dBA
Due to Ambient and Cumulative	-0.1 dBA
Due to All Future Growth	-0.1 dBA

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	79.0 dBA	184	397	856	1845	3974
Existing + Project	79.0 dBA	184	397	856	1845	3974
Future with Ambient Growth	78.9 dBA	183	393	848	1826	3935
Future with Ambient Growth and Project	78.9 dBA	183	393	848	1826	3935
Future with Ambient Growth and Cumulative Projects	78.9 dBA	183	393	848	1826	3935
Future with Ambient, Cumulative, and Project Growth	78.9 dBA	183	393	848	1826	3935

Change in Noise Levels	
Due to Project	0.0 dBA
Due to Ambient Growth	-0.1 dBA
Due to Ambient and Cumulative	-0.1 dBA
Due to All Future Growth	-0.1 dBA

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: Interstate 80 (Sierra College to Horseshoe Bar) - Future

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	80.6 dBA	237	512	1102	2375	5116
Existing + Project	80.6 dBA	237	512	1102	2375	5116
Future with Ambient Growth	80.6 dBA	237	512	1102	2375	5116
Future with Ambient Growth and Project	80.6 dBA	237	512	1102	2375	5116
Future with Ambient Growth and Cumulative Projects	80.6 dBA	237	512	1102	2375	5116
Future with Ambient, Cumulative, and Project Growth	80.6 dBA	237	512	1102	2375	5116
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	81.0 dBA	249	537	1157	2493	5372
Existing + Project	81.0 dBA	249	537	1157	2493	5372
Future with Ambient Growth	81.0 dBA	249	537	1157	2493	5372
Future with Ambient Growth and Project	81.0 dBA	249	537	1157	2493	5372
Future with Ambient Growth and Cumulative Projects	81.0 dBA	249	537	1157	2493	5372
Future with Ambient, Cumulative, and Project Growth	81.0 dBA	249	537	1157	2493	5372
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: Barton Road (n/o Rocklin Road) - Existing

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	54.1 dBA	#N/A	#N/A	#N/A	40	87
Existing + Project	54.1 dBA	#N/A	#N/A	#N/A	40	87
Future with Ambient Growth	54.1 dBA	#N/A	#N/A	#N/A	40	87
Future with Ambient Growth and Project	54.1 dBA	#N/A	#N/A	#N/A	40	87
Future with Ambient Growth and Cumulative Projects	54.1 dBA	#N/A	#N/A	#N/A	40	87
Future with Ambient, Cumulative, and Project Growth	54.1 dBA	#N/A	#N/A	#N/A	40	87
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	54.5 dBA	#N/A	#N/A	#N/A	43	93
Existing + Project	54.5 dBA	#N/A	#N/A	#N/A	43	93
Future with Ambient Growth	54.5 dBA	#N/A	#N/A	#N/A	43	93
Future with Ambient Growth and Project	54.5 dBA	#N/A	#N/A	#N/A	43	93
Future with Ambient Growth and Cumulative Projects	54.5 dBA	#N/A	#N/A	#N/A	43	93
Future with Ambient, Cumulative, and Project Growth	54.5 dBA	#N/A	#N/A	#N/A	43	93
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: Barton Road (n/o Rocklin Road) - Future

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	60.4 dBA	#N/A	#N/A	49	106	228
Existing + Project	60.4 dBA	#N/A	#N/A	49	106	228
Future with Ambient Growth	60.4 dBA	#N/A	#N/A	49	106	228
Future with Ambient Growth and Project	60.4 dBA	#N/A	#N/A	49	106	228
Future with Ambient Growth and Cumulative Projects	60.4 dBA	#N/A	#N/A	49	106	228
Future with Ambient, Cumulative, and Project Growth	60.4 dBA	#N/A	#N/A	49	106	228

Change in Noise Levels	
Due to Project	0.0 dBA
Due to Ambient Growth	0.0 dBA
Due to Ambient and Cumulative	0.0 dBA
Due to All Future Growth	0.0 dBA

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	60.8 dBA	#N/A	#N/A	52	113	243
Existing + Project	60.8 dBA	#N/A	#N/A	52	113	243
Future with Ambient Growth	60.8 dBA	#N/A	#N/A	52	113	243
Future with Ambient Growth and Project	60.8 dBA	#N/A	#N/A	52	113	243
Future with Ambient Growth and Cumulative Projects	60.8 dBA	#N/A	#N/A	52	113	243
Future with Ambient, Cumulative, and Project Growth	60.8 dBA	#N/A	#N/A	52	113	243

Change in Noise Levels	
Due to Project	0.0 dBA
Due to Ambient Growth	0.0 dBA
Due to Ambient and Cumulative	0.0 dBA
Due to All Future Growth	0.0 dBA

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: Horseshoe Bar Road (I-80 to Barton Road) - Existing

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	59.0 dBA	#N/A	#N/A	40	86	186
Existing + Project	59.0 dBA	#N/A	#N/A	40	86	186
Future with Ambient Growth	59.0 dBA	#N/A	#N/A	40	86	186
Future with Ambient Growth and Project	59.0 dBA	#N/A	#N/A	40	86	186
Future with Ambient Growth and Cumulative Projects	59.0 dBA	#N/A	#N/A	40	86	186
Future with Ambient, Cumulative, and Project Growth	59.0 dBA	#N/A	#N/A	40	86	186
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	59.5 dBA	#N/A	#N/A	43	92	198
Existing + Project	59.5 dBA	#N/A	#N/A	43	92	198
Future with Ambient Growth	59.5 dBA	#N/A	#N/A	43	92	198
Future with Ambient Growth and Project	59.5 dBA	#N/A	#N/A	43	92	198
Future with Ambient Growth and Cumulative Projects	59.5 dBA	#N/A	#N/A	43	92	198
Future with Ambient, Cumulative, and Project Growth	59.5 dBA	#N/A	#N/A	43	92	198
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: Horseshoe Bar Road (I-80 to Barton Road) - Future

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	64.1 dBA	#N/A	40	87	188	405
Existing + Project	64.1 dBA	#N/A	40	87	188	405
Future with Ambient Growth	64.1 dBA	#N/A	40	87	188	405
Future with Ambient Growth and Project	64.1 dBA	#N/A	40	87	188	405
Future with Ambient Growth and Cumulative Projects	64.1 dBA	#N/A	40	87	188	405
Future with Ambient, Cumulative, and Project Growth	64.1 dBA	#N/A	40	87	188	405

Change in Noise Levels	
Due to Project	0.0 dBA
Due to Ambient Growth	0.0 dBA
Due to Ambient and Cumulative	0.0 dBA
Due to All Future Growth	0.0 dBA

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	64.5 dBA	#N/A	43	93	200	431
Existing + Project	64.5 dBA	#N/A	43	93	200	431
Future with Ambient Growth	64.5 dBA	#N/A	43	93	200	431
Future with Ambient Growth and Project	64.5 dBA	#N/A	43	93	200	431
Future with Ambient Growth and Cumulative Projects	64.5 dBA	#N/A	43	93	200	431
Future with Ambient, Cumulative, and Project Growth	64.5 dBA	#N/A	43	93	200	431

Change in Noise Levels	
Due to Project	0.0 dBA
Due to Ambient Growth	0.0 dBA
Due to Ambient and Cumulative	0.0 dBA
Due to All Future Growth	0.0 dBA

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: King Road (w/o Swetzer Court) - Existing

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	59.0 dBA	#N/A	#N/A	40	86	186
Existing + Project	59.0 dBA	#N/A	#N/A	40	86	186
Future with Ambient Growth	59.0 dBA	#N/A	#N/A	40	86	186
Future with Ambient Growth and Project	59.0 dBA	#N/A	#N/A	40	86	186
Future with Ambient Growth and Cumulative Projects	59.0 dBA	#N/A	#N/A	40	86	186
Future with Ambient, Cumulative, and Project Growth	59.0 dBA	#N/A	#N/A	40	86	186
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	59.5 dBA	#N/A	#N/A	43	92	198
Existing + Project	59.5 dBA	#N/A	#N/A	43	92	198
Future with Ambient Growth	59.5 dBA	#N/A	#N/A	43	92	198
Future with Ambient Growth and Project	59.5 dBA	#N/A	#N/A	43	92	198
Future with Ambient Growth and Cumulative Projects	59.5 dBA	#N/A	#N/A	43	92	198
Future with Ambient, Cumulative, and Project Growth	59.5 dBA	#N/A	#N/A	43	92	198
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: King Road (w/o Swetzer Court) - Future

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	62.6 dBA	#N/A	32	69	149	321
Existing + Project	62.6 dBA	#N/A	32	69	149	321
Future with Ambient Growth	62.6 dBA	#N/A	32	69	149	321
Future with Ambient Growth and Project	62.6 dBA	#N/A	32	69	149	321
Future with Ambient Growth and Cumulative Projects	62.6 dBA	#N/A	32	69	149	321
Future with Ambient, Cumulative, and Project Growth	62.6 dBA	#N/A	32	69	149	321

Change in Noise Levels	
Due to Project	0.0 dBA
Due to Ambient Growth	0.0 dBA
Due to Ambient and Cumulative	0.0 dBA
Due to All Future Growth	0.0 dBA

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	63.0 dBA	#N/A	34	74	159	342
Existing + Project	63.0 dBA	#N/A	34	74	159	342
Future with Ambient Growth	63.0 dBA	#N/A	34	74	159	342
Future with Ambient Growth and Project	63.0 dBA	#N/A	34	74	159	342
Future with Ambient Growth and Cumulative Projects	63.0 dBA	#N/A	34	74	159	342
Future with Ambient, Cumulative, and Project Growth	63.0 dBA	#N/A	34	74	159	342

Change in Noise Levels	
Due to Project	0.0 dBA
Due to Ambient Growth	0.0 dBA
Due to Ambient and Cumulative	0.0 dBA
Due to All Future Growth	0.0 dBA

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: Laird Road (s/o High Cliff) - Existing

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	54.6 dBA	#N/A	#N/A	#N/A	44	94
Existing + Project	54.6 dBA	#N/A	#N/A	#N/A	44	94
Future with Ambient Growth	54.6 dBA	#N/A	#N/A	#N/A	44	94
Future with Ambient Growth and Project	54.6 dBA	#N/A	#N/A	#N/A	44	94
Future with Ambient Growth and Cumulative Projects	54.6 dBA	#N/A	#N/A	#N/A	44	94
Future with Ambient, Cumulative, and Project Growth	54.6 dBA	#N/A	#N/A	#N/A	44	94
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	55.0 dBA	#N/A	#N/A	#N/A	46	100
Existing + Project	55.0 dBA	#N/A	#N/A	#N/A	46	100
Future with Ambient Growth	55.0 dBA	#N/A	#N/A	#N/A	46	100
Future with Ambient Growth and Project	55.0 dBA	#N/A	#N/A	#N/A	46	100
Future with Ambient Growth and Cumulative Projects	55.0 dBA	#N/A	#N/A	#N/A	46	100
Future with Ambient, Cumulative, and Project Growth	55.0 dBA	#N/A	#N/A	#N/A	46	100
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: Laird Road (s/o High Cliff) - Future

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	58.6 dBA	#N/A	#N/A	38	81	174
Existing + Project	58.6 dBA	#N/A	#N/A	38	81	174
Future with Ambient Growth	58.6 dBA	#N/A	#N/A	38	81	174
Future with Ambient Growth and Project	58.6 dBA	#N/A	#N/A	38	81	174
Future with Ambient Growth and Cumulative Projects	58.6 dBA	#N/A	#N/A	38	81	174
Future with Ambient, Cumulative, and Project Growth	58.6 dBA	#N/A	#N/A	38	81	174

Change in Noise Levels	
Due to Project	0.0 dBA
Due to Ambient Growth	0.0 dBA
Due to Ambient and Cumulative	0.0 dBA
Due to All Future Growth	0.0 dBA

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	59.0 dBA	#N/A	#N/A	40	86	186
Existing + Project	59.0 dBA	#N/A	#N/A	40	86	186
Future with Ambient Growth	59.0 dBA	#N/A	#N/A	40	86	186
Future with Ambient Growth and Project	59.0 dBA	#N/A	#N/A	40	86	186
Future with Ambient Growth and Cumulative Projects	59.0 dBA	#N/A	#N/A	40	86	186
Future with Ambient, Cumulative, and Project Growth	59.0 dBA	#N/A	#N/A	40	86	186

Change in Noise Levels	
Due to Project	0.0 dBA
Due to Ambient Growth	0.0 dBA
Due to Ambient and Cumulative	0.0 dBA
Due to All Future Growth	0.0 dBA

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: Rocklin Road (w/o Barton Road) - Existing

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	58.3 dBA	#N/A	#N/A	36	77	167
Existing + Project	58.3 dBA	#N/A	#N/A	36	77	167
Future with Ambient Growth	58.3 dBA	#N/A	#N/A	36	77	167
Future with Ambient Growth and Project	58.3 dBA	#N/A	#N/A	36	77	167
Future with Ambient Growth and Cumulative Projects	58.3 dBA	#N/A	#N/A	36	77	167
Future with Ambient, Cumulative, and Project Growth	58.3 dBA	#N/A	#N/A	36	77	167
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	58.8 dBA	#N/A	#N/A	38	83	178
Existing + Project	58.8 dBA	#N/A	#N/A	38	83	178
Future with Ambient Growth	58.8 dBA	#N/A	#N/A	38	83	178
Future with Ambient Growth and Project	58.8 dBA	#N/A	#N/A	38	83	178
Future with Ambient Growth and Cumulative Projects	58.8 dBA	#N/A	#N/A	38	83	178
Future with Ambient, Cumulative, and Project Growth	58.8 dBA	#N/A	#N/A	38	83	178
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: Rocklin Road (w/o Barton Road) - Future

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	64.4 dBA	#N/A	42	92	197	425
Existing + Project	64.4 dBA	#N/A	42	92	197	425
Future with Ambient Growth	64.4 dBA	#N/A	42	92	197	425
Future with Ambient Growth and Project	64.4 dBA	#N/A	42	92	197	425
Future with Ambient Growth and Cumulative Projects	64.4 dBA	#N/A	42	92	197	425
Future with Ambient, Cumulative, and Project Growth	64.4 dBA	#N/A	42	92	197	425
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	64.8 dBA	#N/A	45	98	210	453
Existing + Project	64.8 dBA	#N/A	45	98	210	453
Future with Ambient Growth	64.8 dBA	#N/A	45	98	210	453
Future with Ambient Growth and Project	64.8 dBA	#N/A	45	98	210	453
Future with Ambient Growth and Cumulative Projects	64.8 dBA	#N/A	45	98	210	453
Future with Ambient, Cumulative, and Project Growth	64.8 dBA	#N/A	45	98	210	453
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: Sierra College Boulevard (I-80 to Taylor Road) - Existing

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	68.9 dBA	39	84	181	390	840
Existing + Project	68.9 dBA	39	84	181	390	840
Future with Ambient Growth	68.9 dBA	39	84	181	390	840
Future with Ambient Growth and Project	68.9 dBA	39	84	181	390	840
Future with Ambient Growth and Cumulative Projects	68.9 dBA	39	84	181	390	840
Future with Ambient, Cumulative, and Project Growth	68.9 dBA	39	84	181	390	840
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	69.2 dBA	41	88	189	408	879
Existing + Project	69.2 dBA	41	88	189	408	879
Future with Ambient Growth	69.2 dBA	41	88	189	408	879
Future with Ambient Growth and Project	69.2 dBA	41	88	189	408	879
Future with Ambient Growth and Cumulative Projects	69.2 dBA	41	88	189	408	879
Future with Ambient, Cumulative, and Project Growth	69.2 dBA	41	88	189	408	879
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: Sierra College Boulevard (I-80 to Taylor Road) - Future

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	74.7 dBA	96	206	444	957	2063
Existing + Project	74.7 dBA	96	206	444	957	2063
Future with Ambient Growth	74.7 dBA	96	206	444	957	2063
Future with Ambient Growth and Project	74.7 dBA	96	206	444	957	2063
Future with Ambient Growth and Cumulative Projects	74.7 dBA	96	206	444	957	2063
Future with Ambient, Cumulative, and Project Growth	74.7 dBA	96	206	444	957	2063
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	75.0 dBA	100	216	465	1002	2158
Existing + Project	75.0 dBA	100	216	465	1002	2158
Future with Ambient Growth	75.0 dBA	100	216	465	1002	2158
Future with Ambient Growth and Project	75.0 dBA	100	216	465	1002	2158
Future with Ambient Growth and Cumulative Projects	75.0 dBA	100	216	465	1002	2158
Future with Ambient, Cumulative, and Project Growth	75.0 dBA	100	216	465	1002	2158
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: Sierra College Boulevard (n/o King Road) - Existing

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	65.8 dBA	#N/A	53	113	244	527
Existing + Project	65.8 dBA	#N/A	53	113	244	527
Future with Ambient Growth	65.8 dBA	#N/A	53	113	244	527
Future with Ambient Growth and Project	65.8 dBA	#N/A	53	113	244	527
Future with Ambient Growth and Cumulative Projects	65.8 dBA	#N/A	53	113	244	527
Future with Ambient, Cumulative, and Project Growth	65.8 dBA	#N/A	53	113	244	527
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	66.1 dBA	26	55	119	256	551
Existing + Project	66.1 dBA	26	55	119	256	551
Future with Ambient Growth	66.1 dBA	26	55	119	256	551
Future with Ambient Growth and Project	66.1 dBA	26	55	119	256	551
Future with Ambient Growth and Cumulative Projects	66.1 dBA	26	55	119	256	551
Future with Ambient, Cumulative, and Project Growth	66.1 dBA	26	55	119	256	551
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: Sierra College Boulevard (n/o King Road) - Future

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	71.9 dBA	62	134	290	624	1345
Existing + Project	71.9 dBA	62	134	290	624	1345
Future with Ambient Growth	71.9 dBA	62	134	290	624	1345
Future with Ambient Growth and Project	71.9 dBA	62	134	290	624	1345
Future with Ambient Growth and Cumulative Projects	71.9 dBA	62	134	290	624	1345
Future with Ambient, Cumulative, and Project Growth	71.9 dBA	62	134	290	624	1345
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	72.2 dBA	65	141	303	653	1407
Existing + Project	72.2 dBA	65	141	303	653	1407
Future with Ambient Growth	72.2 dBA	65	141	303	653	1407
Future with Ambient Growth and Project	72.2 dBA	65	141	303	653	1407
Future with Ambient Growth and Cumulative Projects	72.2 dBA	65	141	303	653	1407
Future with Ambient, Cumulative, and Project Growth	72.2 dBA	65	141	303	653	1407
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: Sierra College Boulevard (Taylor to Bankhead Road) - Existing

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	67.7 dBA	32	70	150	324	698
Existing + Project	67.7 dBA	32	70	150	324	698
Future with Ambient Growth	67.7 dBA	32	70	150	324	698
Future with Ambient Growth and Project	67.7 dBA	32	70	150	324	698
Future with Ambient Growth and Cumulative Projects	67.7 dBA	32	70	150	324	698
Future with Ambient, Cumulative, and Project Growth	67.7 dBA	32	70	150	324	698
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	67.9 dBA	34	73	157	339	730
Existing + Project	67.9 dBA	34	73	157	339	730
Future with Ambient Growth	67.9 dBA	34	73	157	339	730
Future with Ambient Growth and Project	67.9 dBA	34	73	157	339	730
Future with Ambient Growth and Cumulative Projects	67.9 dBA	34	73	157	339	730
Future with Ambient, Cumulative, and Project Growth	67.9 dBA	34	73	157	339	730
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: Sierra College Boulevard (Taylor to Bankhead Road) - Future

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	73.4 dBA	78	168	362	780	1681
Existing + Project	73.4 dBA	78	168	362	780	1681
Future with Ambient Growth	73.4 dBA	78	168	362	780	1681
Future with Ambient Growth and Project	73.4 dBA	78	168	362	780	1681
Future with Ambient Growth and Cumulative Projects	73.4 dBA	78	168	362	780	1681
Future with Ambient, Cumulative, and Project Growth	73.4 dBA	78	168	362	780	1681

Change in Noise Levels	
Due to Project	0.0 dBA
Due to Ambient Growth	0.0 dBA
Due to Ambient and Cumulative	0.0 dBA
Due to All Future Growth	0.0 dBA

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	73.7 dBA	82	176	379	816	1759
Existing + Project	73.7 dBA	82	176	379	816	1759
Future with Ambient Growth	73.7 dBA	82	176	379	816	1759
Future with Ambient Growth and Project	73.7 dBA	82	176	379	816	1759
Future with Ambient Growth and Cumulative Projects	73.7 dBA	82	176	379	816	1759
Future with Ambient, Cumulative, and Project Growth	73.7 dBA	82	176	379	816	1759

Change in Noise Levels	
Due to Project	0.0 dBA
Due to Ambient Growth	0.0 dBA
Due to Ambient and Cumulative	0.0 dBA
Due to All Future Growth	0.0 dBA

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: Sierra College Boulevard (Bankhead Road to King Road) - Future

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	70.7 dBA	52	111	239	516	1111
Existing + Project	70.7 dBA	52	111	239	516	1111
Future with Ambient Growth	70.7 dBA	52	111	239	516	1111
Future with Ambient Growth and Project	70.7 dBA	52	111	239	516	1111
Future with Ambient Growth and Cumulative Projects	70.7 dBA	52	111	239	516	1111
Future with Ambient, Cumulative, and Project Growth	70.7 dBA	52	111	239	516	1111
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	71.0 dBA	54	116	250	540	1163
Existing + Project	71.0 dBA	54	116	250	540	1163
Future with Ambient Growth	71.0 dBA	54	116	250	540	1163
Future with Ambient Growth and Project	71.0 dBA	54	116	250	540	1163
Future with Ambient Growth and Cumulative Projects	71.0 dBA	54	116	250	540	1163
Future with Ambient, Cumulative, and Project Growth	71.0 dBA	54	116	250	540	1163
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: Taylor Road (e/o Sierra College Blvd.) - Existing

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	66.5 dBA	27	58	126	271	583
Existing + Project	66.5 dBA	27	58	126	271	583
Future with Ambient Growth	66.5 dBA	27	58	126	271	583
Future with Ambient Growth and Project	66.5 dBA	27	58	126	271	583
Future with Ambient Growth and Cumulative Projects	66.5 dBA	27	58	126	271	583
Future with Ambient, Cumulative, and Project Growth	66.5 dBA	27	58	126	271	583
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	66.8 dBA	28	61	131	282	608
Existing + Project	66.8 dBA	28	61	131	282	608
Future with Ambient Growth	66.8 dBA	28	61	131	282	608
Future with Ambient Growth and Project	66.8 dBA	28	61	131	282	608
Future with Ambient Growth and Cumulative Projects	66.8 dBA	28	61	131	282	608
Future with Ambient, Cumulative, and Project Growth	66.8 dBA	28	61	131	282	608
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: Taylor Road (e/o Sierra College Blvd.) - Future

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	69.9 dBA	46	99	213	458	987
Existing + Project	69.9 dBA	46	99	213	458	987
Future with Ambient Growth	69.9 dBA	46	99	213	458	987
Future with Ambient Growth and Project	69.9 dBA	46	99	213	458	987
Future with Ambient Growth and Cumulative Projects	69.9 dBA	46	99	213	458	987
Future with Ambient, Cumulative, and Project Growth	69.9 dBA	46	99	213	458	987
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	70.2 dBA	48	103	222	477	1028
Existing + Project	70.2 dBA	48	103	222	477	1028
Future with Ambient Growth	70.2 dBA	48	103	222	477	1028
Future with Ambient Growth and Project	70.2 dBA	48	103	222	477	1028
Future with Ambient Growth and Cumulative Projects	70.2 dBA	48	103	222	477	1028
Future with Ambient, Cumulative, and Project Growth	70.2 dBA	48	103	222	477	1028
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: Taylor Road (s/o King Road) - Existing

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	65.6 dBA	#N/A	51	110	238	513
Existing + Project	65.6 dBA	#N/A	51	110	238	513
Future with Ambient Growth	65.6 dBA	#N/A	51	110	238	513
Future with Ambient Growth and Project	65.6 dBA	#N/A	51	110	238	513
Future with Ambient Growth and Cumulative Projects	65.6 dBA	#N/A	51	110	238	513
Future with Ambient, Cumulative, and Project Growth	65.6 dBA	#N/A	51	110	238	513
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	65.9 dBA	#N/A	53	115	247	532
Existing + Project	65.9 dBA	#N/A	53	115	247	532
Future with Ambient Growth	65.9 dBA	#N/A	53	115	247	532
Future with Ambient Growth and Project	65.9 dBA	#N/A	53	115	247	532
Future with Ambient Growth and Cumulative Projects	65.9 dBA	#N/A	53	115	247	532
Future with Ambient, Cumulative, and Project Growth	65.9 dBA	#N/A	53	115	247	532
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: Taylor Road (s/o King Road) - Future

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	66.8 dBA	28	61	131	282	607
Existing + Project	66.8 dBA	28	61	131	282	607
Future with Ambient Growth	66.8 dBA	28	61	131	282	607
Future with Ambient Growth and Project	66.8 dBA	28	61	131	282	607
Future with Ambient Growth and Cumulative Projects	66.8 dBA	28	61	131	282	607
Future with Ambient, Cumulative, and Project Growth	66.8 dBA	28	61	131	282	607
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	67.0 dBA	29	63	136	292	630
Existing + Project	67.0 dBA	29	63	136	292	630
Future with Ambient Growth	67.0 dBA	29	63	136	292	630
Future with Ambient Growth and Project	67.0 dBA	29	63	136	292	630
Future with Ambient Growth and Cumulative Projects	67.0 dBA	29	63	136	292	630
Future with Ambient, Cumulative, and Project Growth	67.0 dBA	29	63	136	292	630
Change in Noise Levels						
Due to Project	0.0 dBA					
Due to Ambient Growth	0.0 dBA					
Due to Ambient and Cumulative	0.0 dBA					
Due to All Future Growth	0.0 dBA					

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project: Loomis GP Project No. 0
Date: 9-Nov-99

Roadway: Taylor Road (e/o King Road) - Future

Vehicle Noise Emission Levels*: FHWA

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	64.9 dBA	#N/A	46	99	213	459
Existing + Project	64.9 dBA	#N/A	46	99	213	459
Future with Ambient Growth	64.9 dBA	#N/A	46	99	213	459
Future with Ambient Growth and Project	64.9 dBA	#N/A	46	99	213	459
Future with Ambient Growth and Cumulative Projects	64.9 dBA	#N/A	46	99	213	459
Future with Ambient, Cumulative, and Project Growth	64.9 dBA	#N/A	46	99	213	459

Change in Noise Levels	
Due to Project	0.0 dBA
Due to Ambient Growth	0.0 dBA
Due to Ambient and Cumulative	0.0 dBA
Due to All Future Growth	0.0 dBA

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 100 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	65.2 dBA	#N/A	48	103	221	476
Existing + Project	65.2 dBA	#N/A	48	103	221	476
Future with Ambient Growth	65.2 dBA	#N/A	48	103	221	476
Future with Ambient Growth and Project	65.2 dBA	#N/A	48	103	221	476
Future with Ambient Growth and Cumulative Projects	65.2 dBA	#N/A	48	103	221	476
Future with Ambient, Cumulative, and Project Growth	65.2 dBA	#N/A	48	103	221	476

Change in Noise Levels	
Due to Project	0.0 dBA
Due to Ambient Growth	0.0 dBA
Due to Ambient and Cumulative	0.0 dBA
Due to All Future Growth	0.0 dBA

*NOTES: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.

#N/A = Not Applicable

APPENDIX C

Traffic and Circulation Technical Data

Center For Microcomputers In Transportation
University of Florida
512 Weil Hall
Gainesville, FL 32611-2083
Ph: (904) 392-0378

Streets: (N-S) TAYLOR RD (E-W) OAK ST
Major Street Direction.... NS
Length of Time Analyzed... 15 (min)
Analyst..... FP
Date of Analysis..... 8/8/97
Other Information.....EXISTING AM
Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1 < 0		1	1	0	0	0	0	0 > 1 < 0		
Stop/Yield			N			N						
Volumes		240	20	10	390					10	0	10
PHF		.9	.9	.9	.9					.9	.9	.9
Grade		0			0						0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's				1.10						1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	WB	EB
Conflicting Flows: (vph)	278	
Potential Capacity: (pcph)	1001	
Movement Capacity: (pcph)	1001	
Prob. of Queue-Free State:	0.99	
Step 2: LT from Major Street	**SB**	**NB**
Conflicting Flows: (vph)	289	
Potential Capacity: (pcph)	1248	
Movement Capacity: (pcph)	1248	
Prob. of Queue-Free State:	0.99	
Step 3: TH from Minor Street	**WB**	**EB**
Conflicting Flows: (vph)	722	
Potential Capacity: (pcph)	456	
Capacity Adjustment Factor due to Impeding Movements	0.99	
Movement Capacity: (pcph)	452	
Prob. of Queue-Free State:	1.00	
Step 4: LT from Minor Street	**WB**	**EB**
Conflicting Flows: (vph)	722	
Potential Capacity: (pcph)	404	
Major LT, Minor TH Impedance Factor:	0.99	
Adjusted Impedance Factor:	0.99	
Capacity Adjustment Factor due to Impeding Movements	0.99	
Movement Capacity: (pcph)	400	

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
WB L	12	400 >					
WB T	0	452 >	572	6.6	0.0	B	6.6
WB R	12	1001 >					
SB L	12	1248		2.9	0.0	A	0.1

Intersection Delay = 0.2 sec/veh

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Streets: (N-S) TAYLOR RD (E-W) OAK ST
Major Street Direction.... NS
Length of Time Analyzed... 15 (min)
Analyst..... FP
Date of Analysis..... 8/8/97
Other Information.....EXISTING PM
Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1 < 0		1	1	0	0	0	0	0	> 1 < 0	
Stop/Yield			N			N						
Volumes		530	10	10	380					20	0	10
PHF		.9	.9	.9	.9					.9	.9	.9
Grade		0			0						0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's				1.10						1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	WB	EB
Conflicting Flows: (vph)	594	
Potential Capacity: (pcph)	692	
Movement Capacity: (pcph)	692	
Prob. of Queue-Free State:	0.98	

Step 2: LT from Major Street	SB	NB
Conflicting Flows: (vph)	600	
Potential Capacity: (pcph)	888	
Movement Capacity: (pcph)	888	
Prob. of Queue-Free State:	0.99	

Step 3: TH from Minor Street	WB	EB
Conflicting Flows: (vph)	1028	
Potential Capacity: (pcph)	315	
Capacity Adjustment Factor due to Impeding Movements	0.99	
Movement Capacity: (pcph)	311	
Prob. of Queue-Free State:	1.00	

Step 4: LT from Minor Street	WB	EB
Conflicting Flows: (vph)	1028	
Potential Capacity: (pcph)	269	
Major LT, Minor TH Impedance Factor:	0.99	
Adjusted Impedance Factor:	0.99	
Capacity Adjustment Factor due to Impeding Movements	0.99	
Movement Capacity: (pcph)	265	

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
WB L	24	265 >					
WB T	0	311 >	334	12.1	0.3	C	12.1
WB R	12	692 >					
SB L	12	888		4.1	0.0	A	0.1

Intersection Delay = 0.4 sec/veh

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Streets: (N-S) TAYLOR RD (E-W) WALNUT ST
Major Street Direction.... NS
Length of Time Analyzed... 15 (min)
Analyst..... FP
Date of Analysis..... 8/8/97
Other Information.....EXISTING AM
Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1 < 0		1	1	0	0	0	0	0 > 1 < 0		
Stop/Yield			N			N						
Volumes		210	10	20	390					10	0	20
PHF		.9	.9	.9	.9					.9	.9	.9
Grade		0			0						0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's				1.10						1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	WB	EB
Conflicting Flows: (vph)	238	
Potential Capacity: (pcph)	1049	
Movement Capacity: (pcph)	1049	
Prob. of Queue-Free State:	0.98	

Step 2: LT from Major Street	SB	NB
Conflicting Flows: (vph)	244	
Potential Capacity: (pcph)	1312	
Movement Capacity: (pcph)	1312	
Prob. of Queue-Free State:	0.98	

Step 3: TH from Minor Street	WB	EB
Conflicting Flows: (vph)	694	
Potential Capacity: (pcph)	472	
Capacity Adjustment Factor due to Impeding Movements	0.98	
Movement Capacity: (pcph)	463	
Prob. of Queue-Free State:	1.00	

Step 4: LT from Minor Street	WB	EB
Conflicting Flows: (vph)	694	
Potential Capacity: (pcph)	420	
Major LT, Minor TH Impedance Factor:	0.98	
Adjusted Impedance Factor:	0.98	
Capacity Adjustment Factor due to Impeding Movements	0.98	
Movement Capacity: (pcph)	412	

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
WB L	12	412 >					
WB T	0	463 >	692	5.5	0.0	B	5.5
WB R	24	1049 >					
SB L	24	1312		2.8	0.0	A	0.1

Intersection Delay = 0.3 sec/veh

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Streets: (N-S) TAYLOR RD (E-W) WALNUT ST
Major Street Direction.... NS
Length of Time Analyzed... 15 (min)
Analyst..... FP
Date of Analysis..... 8/8/97
Other Information.....EXISTING PM
Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1 <	0	1	1	0	0	0	0	0 >	1 <	0
Stop/Yield			N			N						
Volumes		520	30	40	370					20	0	60
PHF		.9	.9	.9	.9					.9	.9	.9
Grade		0			0						0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's				1.10						1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	WB	EB
Conflicting Flows: (vph)	594	
Potential Capacity: (pcph)	692	
Movement Capacity: (pcph)	692	
Prob. of Queue-Free State:	0.89	

Step 2: LT from Major Street	SB	NB
Conflicting Flows: (vph)	611	
Potential Capacity: (pcph)	877	
Movement Capacity: (pcph)	877	
Prob. of Queue-Free State:	0.95	

Step 3: TH from Minor Street	WB	EB
Conflicting Flows: (vph)	1050	
Potential Capacity: (pcph)	307	
Capacity Adjustment Factor due to Impeding Movements	0.95	
Movement Capacity: (pcph)	290	
Prob. of Queue-Free State:	1.00	

Step 4: LT from Minor Street	WB	EB
Conflicting Flows: (vph)	1050	
Potential Capacity: (pcph)	261	
Major LT, Minor TH Impedance Factor:	0.95	
Adjusted Impedance Factor:	0.95	
Capacity Adjustment Factor due to Impeding Movements	0.95	
Movement Capacity: (pcph)	247	

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
WB L	24	247 >					
WB T	0	290 >	480	9.4	0.8	B	9.4
WB R	74	692 >					
SB L	48	877		4.3	0.0	A	0.4

Intersection Delay = 0.9 sec/veh

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4d 12-03-1997
Center For Microcomputers In Transportation

Streets: (E-W) HORSESHOE BAR RD (N-S) TAYLOR RD
Analyst: FP File Name: TAHOEXAM.HC9
Area Type: Other 8-8-97 AM
Comment: EXISTING

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes		> 1	<		> 1	1	1	1	<	1	1	<
Volumes	6	32	8	60	3	330	5	270	60	370	370	2
Lane W (ft)		15.0			12.0	15.0	12.0	15.0		12.0	15.0	
RTOR Vols			0			165			10			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	*				NB Left	*			
Thru	*				Thru			*	
Right	*				Right			*	
Peds					Peds				
WB Left	*				SB Left	*	*		
Thru	*				Thru		*	*	
Right	*				Right		*	*	
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	15.0P				Green	5.0A	15.0A	40.0A	
Yellow/AR	4.0				Yellow/AR	4.0	0.0	4.0	

Cycle Length: 87 secs Phase combination order: #1 #5 #6 #7

Intersection Performance Summary

	Lane Group: Mvmts	Adj Sat Flow Cap	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	LTR	284	1546	0.183	0.184	19.4	C	19.4	C
WB	LT	252	1370	0.278	0.184	19.9	C	23.8	C
	R	278	1512	0.662	0.184	25.3	D		
NB	L	121	1752	0.050	0.069	24.4	C	10.5	B
	TR	794	1684	0.449	0.471	10.2	B		
SB	L	423	1752	0.972	0.241	48.2	E	26.3	D
	TR	1305	2028	0.316	0.644	4.5	A		

Intersection Delay = 21.8 sec/veh Intersection LOS = C

Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.633

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4d 12-03-1997
Center For Microcomputers In Transportation

Streets: (E-W) HORSESHOE BAR RD (N-S) TAYLOR RD
Analyst: FP File Name: TAHOEXPM.HC9
Area Type: Other 8-8-97 PM
Comment: EXISTING

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes		> 1	<		> 1	1	1	1	<	1	1	<
Volumes	2	3	3	60	5	310	5	460	40	210	370	2
Lane W (ft)		15.0			12.0	15.0	12.0	15.0		12.0	15.0	
RTOR Vols			0			155			10			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	*				NB Left	*			
Thru	*				Thru			*	
Right	*				Right			*	
Peds					Peds				
WB Left	*				SB Left	*	*		
Thru	*				Thru		*	*	
Right	*				Right		*	*	
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	14.0P				Green	5.0A	10.0A	49.0A	
Yellow/AR	4.0				Yellow/AR	4.0	0.0	4.0	

Cycle Length: 90 secs Phase combination order: #1 #5 #6 #7

Intersection Performance Summary

	Lane Group: Mvmts	Adj Sat Flow Cap	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	LTR	246 1479	0.032	0.167	20.3	C	20.3	C
WB	LT	281 1688	0.259	0.167	21.2	C	25.8	D
	R	252 1512	0.683	0.167	27.8	D		
NB	L	117 1752	0.051	0.067	25.4	D	9.2	B
	TR	949 1709	0.573	0.556	9.1	B		
SB	L	311 1752	0.748	0.178	29.2	D	13.1	B
	TR	1352 2028	0.305	0.667	4.1	A		

Intersection Delay = 13.8 sec/veh Intersection LOS = B

Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.628

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Streets: (N-S) TAYLOR RD (E-W) WEBB ST
Major Street Direction.... NS
Length of Time Analyzed... 15 (min)
Analyst..... FP
Date of Analysis..... 8/8/97
Other Information.....EXISTING AM
Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1 < 0		1	1 < 0		0	> 1 < 0		0	> 1 < 0	
Stop/Yield			N			N						
Volumes	50	490	10	5	620	4	2	3	110	2	0	5
PHF	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	WB	EB
Conflicting Flows: (vph)	550	691
Potential Capacity: (pcph)	729	618
Movement Capacity: (pcph)	729	618
Prob. of Queue-Free State:	0.99	0.78
Step 2: LT from Major Street	**SB**	**NB**
Conflicting Flows: (vph)	555	693
Potential Capacity: (pcph)	932	801
Movement Capacity: (pcph)	932	801
Prob. of Queue-Free State:	0.99	0.92
Step 3: TH from Minor Street	**WB**	**EB**
Conflicting Flows: (vph)	1304	1308
Potential Capacity: (pcph)	226	225
Capacity Adjustment Factor due to Impeding Movements	0.92	0.92
Movement Capacity: (pcph)	207	206
Prob. of Queue-Free State:	1.00	0.99
Step 4: LT from Minor Street	**WB**	**EB**
Conflicting Flows: (vph)	1365	1306
Potential Capacity: (pcph)	172	186
Major LT, Minor TH Impedance Factor:	0.90	0.92
Adjusted Impedance Factor:	0.93	0.94
Capacity Adjustment Factor due to Impeding Movements	0.72	0.93
Movement Capacity: (pcph)	125	172

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
EB L	2	172 >					
EB T	3	206 >	572	8.3	1.0	B	8.3
EB R	134	618 >					
WB L	2	125 >					
WB T	0	207 >	352	10.5	0.0	C	10.5
WB R	7	729 >					
NB L	62	801		4.9	0.2	A	0.4
SB L	7	932		3.9	0.0	A	0.0

Intersection Delay = 1.0 sec/veh

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Streets: (N-S) TAYLOR RD (E-W) WEBB ST
Major Street Direction.... NS
Length of Time Analyzed... 15 (min)
Analyst..... FP
Date of Analysis..... 8/8/97
Other Information.....EXISTING PM
Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1 < 0		1	1 < 0		0	> 1 < 0		0	> 1 < 0	
Stop/Yield			N			N						
Volumes	150	620	10	20	500	1	1	5	80	3	2	7
PHF	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	WB	EB
Conflicting Flows: (vph)	694	556
Potential Capacity: (pcph)	616	724
Movement Capacity: (pcph)	616	724
Prob. of Queue-Free State:	0.99	0.86

Step 2: LT from Major Street	SB	NB
Conflicting Flows: (vph)	700	557
Potential Capacity: (pcph)	795	930
Movement Capacity: (pcph)	795	930
Prob. of Queue-Free State:	0.97	0.80

Step 3: TH from Minor Street	WB	EB
Conflicting Flows: (vph)	1440	1446
Potential Capacity: (pcph)	191	190
Capacity Adjustment Factor due to Impeding Movements	0.78	0.78
Movement Capacity: (pcph)	149	148
Prob. of Queue-Free State:	0.99	0.95

Step 4: LT from Minor Street	WB	EB
Conflicting Flows: (vph)	1488	1445
Potential Capacity: (pcph)	146	154
Major LT, Minor TH Impedance Factor:	0.74	0.77
Adjusted Impedance Factor:	0.80	0.82
Capacity Adjustment Factor due to Impeding Movements	0.69	0.81
Movement Capacity: (pcph)	101	125

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
EB L	1	125 >					
EB T	7	148 >	556	8.0	0.7	B	8.0
EB R	98	724 >					
WB L	3	101 >					
WB T	2	149 >	242	15.8	0.0	C	15.8
WB R	9	616 >					
NB L	184	930		4.8	0.8	A	0.9
SB L	24	795		4.7	0.0	A	0.2

Intersection Delay = 1.2 sec/veh

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4d 10-09-1997
Center For Microcomputers In Transportation

Streets: (E-W) KING ROAD (N-S) TAYLOR RD
Analyst: FP File Name: TAKIEXAM.HC9
Area Type: Other 8-8-97 AM
Comment: EXISTING

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1 <		1	1 <		1	2 <		1	2 <	
Volumes	160	140	220	110	110	150	170	330	90	60	340	70
Lane W (ft)	12.0	12.0		12.0	15.0		12.0	12.0		12.0	12.0	
RTOR Vols			0			20			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	*				NB Left	*	*		
Thru	*				Thru		*	*	
Right	*				Right		*	*	
Peds					Peds				
WB Left		*			SB Left	*			
Thru		*			Thru			*	
Right		*			Right			*	
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	25.0A	20.0A			Green	6.0A	8.0A	25.0A	
Yellow/AR	4.0	4.0			Yellow/AR	4.0	0.0	4.0	

Cycle Length: 100 secs Phase combination order: #1 #2 #5 #6 #7

Intersection Performance Summary

	Lane Group: Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	460	1770	0.387	0.260	19.9	C	52.3	E
	TR	389	1498	1.027	0.260	66.6	F		
WB	L	365	1736	0.335	0.210	21.9	C	28.5	D
	TR	343	1634	0.778	0.210	31.5	D		
NB	L	263	1752	0.719	0.150	32.4	D	21.1	C
	TR	1123	3303	0.436	0.340	16.7	C		
SB	L	123	1752	0.546	0.070	32.8	D	22.3	C
	TR	935	3595	0.512	0.260	20.8	C		

Intersection Delay = 30.9 sec/veh Intersection LOS = D

Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.763

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4d 10-09-1997
Center For Microcomputers In Transportation

Streets: (E-W) KING ROAD (N-S) TAYLOR RD
Analyst: FP File Name: TAKIEXPM.HC9
Area Type: Other 8-8-97 PM
Comment: EXISTING

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	<	1	1	<	1	2	<	1	2	<
Volumes	70	90	140	120	80	50	260	280	200	50	260	100
Lane W (ft)	12.0	12.0		12.0	15.0		12.0	12.0		12.0	12.0	
RTOR Vols			0			10			30			15
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	*				NB	Left	*	*		
	Thru	*					Thru		*	*	
	Right	*					Right		*	*	
	Peds						Peds				
WB	Left		*			SB	Left	*			
	Thru		*				Thru			*	
	Right		*				Right			*	
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		18.0A	18.0A			Green		7.0A	12.0A	25.0A	
Yellow/AR		4.0	4.0			Yellow/AR		4.0	0.0	4.0	

Cycle Length: 96 secs Phase combination order: #1 #2 #5 #6 #7

Intersection Performance Summary

	Lane Group: Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	350	1770	0.223	0.198	20.9	C	35.1	D
	TR	296	1498	0.863	0.198	39.4	D		
WB	L	344	1736	0.387	0.198	22.0	C	22.0	C
	TR	334	1689	0.401	0.198	22.1	C		
NB	L	365	1752	0.792	0.208	31.0	D	19.8	C
	TR	1274	3219	0.412	0.396	13.7	B		
SB	L	146	1752	0.384	0.083	27.8	D	19.9	C
	TR	962	3553	0.418	0.271	18.8	C		

Intersection Delay = 22.9 sec/veh Intersection LOS = C

Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.604

Center For Microcomputers In Transportation
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Ph: (904) 392-0378

Streets: (N-S) Webb Street (E-W) King Road
Major Street Direction.... EW
Length of Time Analyzed... 15 (min)
Analyst..... CE
Date of Analysis..... 6/16/98
Other Information.....AM Peak Hour Existing Conditions
Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	< 0	0	> 1	< 0	0	> 1	< 0	0	> 1	< 0
Stop/Yield			N			N						
Volumes	0	124	71	9	63	12	28	12	10	19	37	2
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	NB	SB
Conflicting Flows: (vph)	168	72
Potential Capacity: (pcph)	1138	1273
Movement Capacity: (pcph)	1138	1273
Prob. of Queue-Free State:	0.99	1.00
Step 2: LT from Major Street	**WB**	**EB**
Conflicting Flows: (vph)	206	79
Potential Capacity: (pcph)	1367	1572
Movement Capacity: (pcph)	1367	1572
Prob. of Queue-Free State:	0.99	1.00
TH Saturation Flow Rate: (pcphpl)	1700	1700
RT Saturation Flow Rate: (pcphpl)	1700	1700
Major LT Shared Lane Prob. of Queue-Free State:	0.99	1.00
Step 3: TH from Minor Street	**NB**	**SB**
Conflicting Flows: (vph)	256	288
Potential Capacity: (pcph)	801	770
Capacity Adjustment Factor due to Impeding Movements	0.99	0.99
Movement Capacity: (pcph)	795	764
Prob. of Queue-Free State:	0.98	0.94
Step 4: LT from Minor Street	**NB**	**SB**
Conflicting Flows: (vph)	270	262
Potential Capacity: (pcph)	739	747
Major LT, Minor TH Impedance Factor:	0.94	0.97
Adjusted Impedance Factor:	0.95	0.98
Capacity Adjustment Factor due to Impeding Movements	0.95	0.97
Movement Capacity: (pcph)	702	725

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)		Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB L	32	702	>					
NB T	14	795	>	787	4.9	0.1	A	4.9
NB R	12	1138	>					
SB L	22	725	>					
SB T	43	764	>	760	5.2	0.2	B	5.2
SB R	2	1273	>					
EB L	0	1572			2.3	0.0	A	0.0
WB L	10	1367			2.7	0.0	A	0.3

Intersection Delay = 1.5 sec/veh

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Streets: (N-S) Webb Street (E-W) King Road
Major Street Direction.... EW
Length of Time Analyzed... 15 (min)
Analyst..... CE
Date of Analysis..... 6/16/98
Other Information.....PM Peak Hour Existing Conditions
Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	< 0	0	> 1	< 0	0	> 1	< 0	0	> 1	< 0
Stop/Yield			N			N						
Volumes	3	111	82	8	183	27	113	41	15	14	24	5
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	NB	SB
Conflicting Flows: (vph)	160	207
Potential Capacity: (pcph)	1149	1088
Movement Capacity: (pcph)	1149	1088
Prob. of Queue-Free State:	0.98	0.99
Step 2: LT from Major Street	**WB**	**EB**
Conflicting Flows: (vph)	203	221
Potential Capacity: (pcph)	1372	1345
Movement Capacity: (pcph)	1372	1345
Prob. of Queue-Free State:	0.99	1.00
TH Saturation Flow Rate: (pcphpl)	1700	1700
RT Saturation Flow Rate: (pcphpl)	1700	1700
Major LT Shared Lane Prob. of Queue-Free State:	0.99	1.00
Step 3: TH from Minor Street	**NB**	**SB**
Conflicting Flows: (vph)	392	421
Potential Capacity: (pcph)	679	656
Capacity Adjustment Factor due to Impeding Movements	0.99	0.99
Movement Capacity: (pcph)	672	649
Prob. of Queue-Free State:	0.93	0.96
Step 4: LT from Minor Street	**NB**	**SB**
Conflicting Flows: (vph)	393	408
Potential Capacity: (pcph)	627	615
Major LT, Minor TH Impedance Factor:	0.95	0.92
Adjusted Impedance Factor:	0.96	0.94
Capacity Adjustment Factor due to Impeding Movements	0.95	0.92
Movement Capacity: (pcph)	598	569

Intersection Performance Summary

Movement		Flow Rate (pcph)	Move Cap (pcph)		Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB	L	131	598	>					
NB	T	47	672	>	643	8.0	1.4	B	8.0
NB	R	18	1149	>					
SB	L	17	569	>					
SB	T	28	649	>	649	6.0	0.2	B	6.0
SB	R	6	1088	>					
EB	L	3	1345			2.7	0.0	A	0.0
WB	L	9	1372			2.6	0.0	A	0.1

Intersection Delay = 2.6 sec/veh

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Streets: (N-S) Sierra College Blvd. (E-W) King Road
Major Street Direction.... NS
Length of Time Analyzed... 15 (min)
Analyst..... CE
Date of Analysis..... 6/16/98
Other Information.....AM Peak Hour Existing Conditions
Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1 < 0		1	1 < 0		0	> 1 < 0		0	> 1 < 0	
Stop/Yield			N			N						
Volumes	3	134	17	50	316	8	5	9	3	21	19	32
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	WB	EB
Conflicting Flows: (vph)	150	337
Potential Capacity: (pcph)	1162	934
Movement Capacity: (pcph)	1162	934
Prob. of Queue-Free State:	0.97	1.00
Step 2: LT from Major Street	**SB**	**NB**
Conflicting Flows: (vph)	159	341
Potential Capacity: (pcph)	1440	1179
Movement Capacity: (pcph)	1440	1179
Prob. of Queue-Free State:	0.96	1.00
Step 3: TH from Minor Street	**WB**	**EB**
Conflicting Flows: (vph)	547	552
Potential Capacity: (pcph)	563	560
Capacity Adjustment Factor due to Impeding Movements	0.96	0.96
Movement Capacity: (pcph)	539	536
Prob. of Queue-Free State:	0.96	0.98
Step 4: LT from Minor Street	**WB**	**EB**
Conflicting Flows: (vph)	549	570
Potential Capacity: (pcph)	509	495
Major LT, Minor TH Impedance Factor:	0.94	0.92
Adjusted Impedance Factor:	0.95	0.94
Capacity Adjustment Factor due to Impeding Movements	0.95	0.91
Movement Capacity: (pcph)	484	449

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
EB L	6	449 >					
EB T	10	536 >	539	6.9	0.0	B	6.9
EB R	3	934 >					
WB L	24	484 >					
WB T	22	539 >	679	6.0	0.4	B	6.0
WB R	37	1162 >					
NB L	3	1179		3.1	0.0	A	0.1
SB L	58	1440		2.6	0.0	A	0.3

Intersection Delay = 1.1 sec/veh

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Streets: (N-S) Sierra College Blvd. (E-W) King Road
Major Street Direction.... NS
Length of Time Analyzed... 15 (min)
Analyst..... CE
Date of Analysis..... 6/16/98
Other Information.....PM Peak Hour Existing Conditions
Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1 < 0		1	1 < 0		0	> 1 < 0		0	> 1 < 0	
Stop/Yield			N			N						
Volumes	10	318	27	32	212	0	12	24	6	20	20	75
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0			0			0			0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	WB	EB
Conflicting Flows: (vph)	349	223
Potential Capacity: (pcph)	922	1067
Movement Capacity: (pcph)	922	1067
Prob. of Queue-Free State:	0.91	0.99
Step 2: LT from Major Street	**SB**	**NB**
Conflicting Flows: (vph)	363	223
Potential Capacity: (pcph)	1151	1342
Movement Capacity: (pcph)	1151	1342
Prob. of Queue-Free State:	0.97	0.99
Step 3: TH from Minor Street	**WB**	**EB**
Conflicting Flows: (vph)	617	631
Potential Capacity: (pcph)	518	509
Capacity Adjustment Factor due to Impeding Movements	0.96	0.96
Movement Capacity: (pcph)	497	488
Prob. of Queue-Free State:	0.95	0.94
Step 4: LT from Minor Street	**WB**	**EB**
Conflicting Flows: (vph)	632	667
Potential Capacity: (pcph)	456	435
Major LT, Minor TH Impedance Factor:	0.90	0.91
Adjusted Impedance Factor:	0.93	0.93
Capacity Adjustment Factor due to Impeding Movements	0.92	0.85
Movement Capacity: (pcph)	420	368

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
EB L	14	368 >					
EB T	28	488 >	480	8.4	0.3	B	8.4
EB R	7	1067 >					
WB L	23	420 >					
WB T	23	497 >	681	6.6	0.8	B	6.6
WB R	87	922 >					
NB L	12	1342		2.7	0.0	A	0.1
SB L	37	1151		3.2	0.0	A	0.4

Intersection Delay = 1.6 sec/veh

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4d 06-16-1998
Center For Microcomputers In Transportation

Streets: (E-W) Taylor Road (N-S) Sierra College Blvd.
Analyst: CE File Name: EXTASCAM.HC9
Area Type: Other 6-16-98 AM Peak
Comment: Existing Conditions

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Volumes	44	131	29	135	173	10	66	123	89	9	300	77
Lane W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
RTOR Vols			10			3			29			25
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	*				NB	Left	*			
	Thru		*				Thru		*		
	Right		*				Right		*		
	Peds						Peds				
WB	Left	*				SB	Left	*			
	Thru		*				Thru		*		
	Right		*				Right		*		
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		10.0A	26.0A			Green		8.0A	32.0A		
Yellow/AR		4.0	4.0			Yellow/AR		4.0	4.0		

Cycle Length: 92 secs Phase combination order: #1 #2 #5 #6

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	212	1770	0.217	0.120	23.7	C	17.7	C
	T	547	1863	0.252	0.293	16.1	C		
	R	465	1583	0.043	0.293	15.0	B		
WB	L	212	1770	0.671	0.120	30.5	D	22.5	C
	T	547	1863	0.333	0.293	16.6	C		
	R	465	1583	0.017	0.293	14.9	B		
NB	L	173	1770	0.398	0.098	26.0	D	16.4	C
	T	668	1863	0.193	0.359	13.1	B		
	R	568	1583	0.111	0.359	12.7	B		
SB	L	173	1770	0.052	0.098	24.3	C	15.0	B
	T	668	1863	0.473	0.359	15.1	C		
	R	568	1583	0.097	0.359	12.7	B		

Intersection Delay = 17.9 sec/veh Intersection LOS = C

Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.444

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4d 06-16-1998
Center For Microcomputers In Transportation

Streets: (E-W) Taylor Road (N-S) Sierra College Blvd.
Analyst: CE File Name: EXTASCPM.HC9
Area Type: Other 6-16-98 PM Peak
Comment: Existing Conditions

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Volumes	76	312	56	172	224	18	67	303	222	14	207	51
Lane W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
RTOR Vols			10			3			29			25
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	*				NB Left	*			
Thru		*			Thru		*		
Right		*			Right		*		
Peds					Peds				
WB Left	*				SB Left	*			
Thru		*			Thru		*		
Right		*			Right		*		
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	10.0A	26.0A			Green	8.0A	32.0A		
Yellow/AR	4.0	4.0			Yellow/AR	4.0	4.0		

Cycle Length: 92 secs Phase combination order: #1 #2 #5 #6

Intersection Performance Summary

	Lane Group: Mvmts	Adj Sat Flow Cap	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	212	1770	0.378	0.120	24.7	C	19.8	C
	T	547	1863	0.600	0.293	19.3	C		
	R	465	1583	0.103	0.293	15.3	C		
WB	L	212	1770	0.855	0.120	44.4	E	28.6	D
	T	547	1863	0.432	0.293	17.3	C		
	R	465	1583	0.034	0.293	15.0	B		
NB	L	173	1770	0.410	0.098	26.1	D	16.1	C
	T	668	1863	0.477	0.359	15.2	C		
	R	568	1583	0.358	0.359	14.2	B		
SB	L	173	1770	0.087	0.098	24.4	C	14.4	B
	T	668	1863	0.326	0.359	13.9	B		
	R	568	1583	0.049	0.359	12.4	B		

Intersection Delay = 19.9 sec/veh Intersection LOS = C

Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.563

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4d 06-18-1998
Center For Microcomputers In Transportation

Streets: (E-W) I-80 WB Ramps (N-S) Horseshoe Bar Road
Analyst: CE File Name: EXHBI8WA.HC9
Area Type: Other 6-16-98 AM Peak
Comment: Existing Conditions

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes		> 1	1	1	1 <		1	2 <		1	1	1
Volumes	76	37	40	25	48	19	103	242	40	28	129	295
Lane W (ft)		12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0
RTOR Vols			13			6			13			295
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	*				NB Left	*			
Thru	*				Thru		*		
Right	*				Right		*		
Peds					Peds				
WB Left		*			SB Left	*			
Thru		*			Thru		*		
Right		*			Right		*		
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	10.0A	6.0A			Green	10.0A	48.0A		
Yellow/AR	4.0	4.0			Yellow/AR	4.0	4.0		

Cycle Length: 90 secs Phase combination order: #1 #2 #5 #6

Intersection Performance Summary

	Lane Group: Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	LT	220	1802	0.540	0.122	26.0	D	25.4	D
	R	193	1583	0.145	0.122	22.8	C		
WB	L	138	1770	0.189	0.078	25.2	D	26.8	D
	TR	140	1803	0.464	0.078	27.4	D		
NB	L	216	1770	0.499	0.122	25.4	D	11.6	B
	TR	1998	3670	0.149	0.544	6.6	B		
SB	L	216	1770	0.134	0.122	22.8	C	9.4	B
	T	1014	1863	0.134	0.544	6.5	B		
	R	1014	1863	0.000	0.544	0.0	A		

Intersection Delay = 15.4 sec/veh Intersection LOS = C
Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.282

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4d 06-16-1998
Center For Microcomputers In Transportation

Streets: (E-W) I-80 WB Ramps (N-S) Horseshoe Bar Road
Analyst: CE File Name: EXHBI8WP.HC9
Area Type: Other 6-16-98 PM Peak
Comment: Existing Conditions

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes		> 1	1	1	1	<	1	2	<	1	1	1
Volumes	59	55	36	139	47	75	56	356	151	40	138	255
Lane W (ft)		12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0
RTOR Vols			12			25			50			255
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	*				NB Left	*			
Thru	*				Thru		*		
Right	*				Right		*		
Peds					Peds				
WB Left		*			SB Left	*			
Thru		*			Thru		*		
Right		*			Right		*		
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	10.0A	8.0A			Green	8.0A	48.0A		
Yellow/AR	4.0	4.0			Yellow/AR	4.0	4.0		

Cycle Length: 90 secs Phase combination order: #1 #2 #5 #6

Intersection Performance Summary

	Lane Group:	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
	Mvmts								
EB	LT	222	1816	0.541	0.122	26.0	D	25.5	D
	R	193	1583	0.129	0.122	22.8	C		
WB	L	177	1770	0.825	0.100	43.2	E	37.3	D
	TR	172	1718	0.594	0.100	28.9	D		
NB	L	177	1770	0.333	0.100	24.8	C	8.9	B
	TR	1961	3602	0.258	0.544	7.0	B		
SB	L	177	1770	0.237	0.100	24.3	C	10.5	B
	T	1014	1863	0.143	0.544	6.5	B		
	R	1014	1863	0.000	0.544	0.0	A		

Intersection Delay = 17.4 sec/veh Intersection LOS = C

Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.372

Center For Microcomputers In Transportation
University of Florida
512 Weil Hall
Gainesville, FL 32611-2083
Ph: (904) 392-0378

Streets: (N-S) Horseshoe Bar Road (E-W) I-80 EB Ramps
Major Street Direction.... NS
Length of Time Analyzed... 15 (min)
Analyst..... CE
Date of Analysis..... 6/16/98
Other Information.....AM Peak Hour Existing Conditions
Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1 <	0	0 >	1	0	0	0	0	0 >	1 <	0
Stop/Yield			N			N						
Volumes		193	37	64	130					19	0	192
PHF		.95	.95	.95	.95					.95	.95	.95
Grade		0			0						0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's				1.10						1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	WB	EB
Conflicting Flows: (vph)	222	
Potential Capacity: (pcph)	1069	
Movement Capacity: (pcph)	1069	
Prob. of Queue-Free State:	0.79	

Step 2: LT from Major Street	SB	NB
Conflicting Flows: (vph)	242	
Potential Capacity: (pcph)	1315	
Movement Capacity: (pcph)	1315	
Prob. of Queue-Free State:	0.94	
TH Saturation Flow Rate: (pcphpl)	1700	
RT Saturation Flow Rate: (pcphpl)		
Major LT Shared Lane Prob. of Queue-Free State:	0.94	

Step 3: TH from Minor Street	WB	EB
Conflicting Flows: (vph)	426	
Potential Capacity: (pcph)	652	
Capacity Adjustment Factor due to Impeding Movements	0.94	
Movement Capacity: (pcph)	612	
Prob. of Queue-Free State:	1.00	

Step 4: LT from Minor Street	WB	EB
Conflicting Flows: (vph)	426	
Potential Capacity: (pcph)	600	
Major LT, Minor TH Impedance Factor:	0.94	
Adjusted Impedance Factor:	0.94	
Capacity Adjustment Factor due to Impeding Movements	0.94	
Movement Capacity: (pcph)	563	

Intersection Performance Summary

Movement		Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
WB	L	22	563 >					
WB	T	0	612 >	989	4.8	1.1	A	4.8
WB	R	222	1069 >					
SB	L	74	1315		2.9	0.0	A	1.0

Intersection Delay = 1.9 sec/veh

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Streets: (N-S) Horseshoe Bar Road (E-W) I-80 EB Ramps
Major Street Direction.... NS
Length of Time Analyzed... 15 (min)
Analyst..... CE
Date of Analysis..... 6/16/98
Other Information.....PM Peak Hour Existing Conditions
Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	< 0	0	> 1	0	0	0	0	0	> 1	< 0
Stop/Yield			N			N						
Volumes		168	36	163	150					106	0	384
PHF		.95	.95	.95	.95					.95	.95	.95
Grade		0			0						0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's				1.10						1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	WB	EB
Conflicting Flows: (vph)	196	
Potential Capacity: (pcph)	1102	
Movement Capacity: (pcph)	1102	
Prob. of Queue-Free State:	0.60	

Step 2: LT from Major Street	SB	NB
Conflicting Flows: (vph)	215	
Potential Capacity: (pcph)	1354	
Movement Capacity: (pcph)	1354	
Prob. of Queue-Free State:	0.86	
TH Saturation Flow Rate: (pcphpl)	1700	
RT Saturation Flow Rate: (pcphpl)		
Major LT Shared Lane Prob. of Queue-Free State:	0.85	

Step 3: TH from Minor Street	WB	EB
Conflicting Flows: (vph)	526	
Potential Capacity: (pcph)	578	
Capacity Adjustment Factor due to Impeding Movements	0.85	
Movement Capacity: (pcph)	489	
Prob. of Queue-Free State:	1.00	

Step 4: LT from Minor Street	WB	EB
Conflicting Flows: (vph)	526	
Potential Capacity: (pcph)	525	
Major LT, Minor TH Impedance Factor:	0.85	
Adjusted Impedance Factor:	0.85	
Capacity Adjustment Factor due to Impeding Movements	0.85	
Movement Capacity: (pcph)	444	

Intersection Performance Summary

Movement		Flow Rate (pcph)	Move Cap (pcph)		Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
WB	L	123	444	>					
WB	T	0	489	>	834	13.0	5.4	C	13.0
WB	R	444	1102	>					
SB	L	189	1354			3.1	0.5	A	1.6

Intersection Delay = 6.8 sec/veh

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4d 06-18-1998
Center For Microcomputers In Transportation

Streets: (E-W) I-80 WB Ramps (N-S) Sierra College Blvd.
Analyst: CE File Name: EXSCI80A.HC9
Area Type: Other 6-16-98 AM Peak
Comment: Existing Conditions

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes		> 1	<		> 1	1	1	1	<	1	1	<
Volumes	7	10	11	351	2	189	6	327	45	281	354	3
Lane W (ft)		12.0			12.0	12.0	12.0	12.0		12.0	12.0	
RTOR Vols			3			62			15			1
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	*				NB Left	*			
Thru	*				Thru		*		
Right	*				Right		*		
Peds					Peds				
WB Left		*			SB Left	*			
Thru		*			Thru		*		
Right		*			Right		*		
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	8.0A	24.0A			Green	16.0A	26.0A		
Yellow/AR	4.0	4.0			Yellow/AR	4.0	4.0		

Cycle Length: 90 secs Phase combination order: #1 #2 #5 #6

Intersection Performance Summary

	Lane Group: Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	LTR	157	1572	0.172	0.100	24.0	C	24.0	C
WB	LT	493	1774	0.753	0.278	23.6	C	21.8	C
	R	440	1583	0.305	0.278	16.7	C		
NB	L	334	1770	0.018	0.189	19.2	C	20.2	C
	TR	552	1840	0.679	0.300	20.2	C		
SB	L	334	1770	0.885	0.189	39.4	D	28.6	D
	TR	558	1861	0.672	0.300	20.0	C		

Intersection Delay = 24.3 sec/veh Intersection LOS = C
Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.689

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4d 06-18-1998
Center For Microcomputers In Transportation

Streets: (E-W) I-80 WB Ramps (N-S) Sierra College Blvd.
Analyst: CE File Name: EXSCI80P.HC9
Area Type: Other 6-16-98 PM Peak
Comment: Existing Conditions

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes		> 1	<		> 1	1	1	1	<	1	1	<
Volumes	5	3	13	326	6	126	11	483	12	140	337	11
Lane W (ft)		12.0			12.0	12.0	12.0	12.0		12.0	12.0	
RTOR Vols			4			42			4			4
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	*				NB Left	*			
Thru	*				Thru		*		
Right	*				Right		*		
Peds					Peds				
WB Left		*			SB Left	*			
Thru		*			Thru		*		
Right		*			Right		*		
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	8.0A	20.0A			Green	16.0A	30.0A		
Yellow/AR	4.0	4.0			Yellow/AR	4.0	4.0		

Cycle Length: 90 secs Phase combination order: #1 #2 #5 #6

Intersection Performance Summary

	Lane Group: Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	LTR	152	1516	0.119	0.100	23.8	C	23.8	C
WB	LT	414	1775	0.843	0.233	31.3	D	28.7	D
	R	369	1583	0.241	0.233	18.2	C		
NB	L	334	1770	0.036	0.189	19.3	C	22.5	C
	TR	640	1858	0.808	0.344	22.6	C		
SB	L	334	1770	0.440	0.189	21.5	C	17.9	C
	TR	640	1857	0.568	0.344	16.4	C		

Intersection Delay = 22.8 sec/veh Intersection LOS = C

Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.657

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4d 06-18-1998
Center For Microcomputers In Transportation

Streets: (E-W) I-80 EB Ramps (N-S) Sierra College Blvd.
Analyst: CE File Name: EXSC8EBA.HC9
Area Type: Other 6-16-98 AM Peak
Comment: Existing Conditions

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1		1				1	1			1	<
Volumes	137		8				187	241			603	113
Lane W (ft)	12.0		12.0				12.0	12.0			12.0	
RTOR Vols			3						0			37
Lost Time	3.00		3.00				3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru					Thru	*	*	
Right	*				Right			
Peds					Peds			
WB Left					SB Left			
Thru					Thru		*	
Right					Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	10.0A				Green	15.0A	45.0A	
Yellow/AR	4.0				Yellow/AR	4.0	4.0	

Cycle Length: 82 secs Phase combination order: #1 #5 #6

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	237	1770	0.606	0.134	24.7	C	24.6	C
	R	212	1583	0.024	0.134	19.9	C		
NB	L	345	1770	0.570	0.195	21.0	C	9.9	B
	T	1477	1863	0.172	0.793	1.3	A		
SB	TR	924	1648	0.773	0.561	11.9	B	11.9	B

Intersection Delay = 12.7 sec/veh Intersection LOS = B

Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.704

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4d 06-18-1998
Center For Microcomputers In Transportation

Streets: (E-W) I-80 EB Ramps (N-S) Sierra College Blvd.
Analyst: CE File Name: EXSC8EBP.HC9
Area Type: Other 6-16-98 PM Peak
Comment: Existing Conditions

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1		1				1	1			1 <	
Volumes	253		19				333	253			523	153
Lane W (ft)	12.0		12.0				12.0	12.0			12.0	
RTOR Vols			6						0			50
Lost Time	3.00		3.00				3.00	3.00			3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru					Thru	*	*	
Right	*				Right			
Peds					Peds			
WB Left					SB Left			
Thru					Thru		*	
Right					Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	17.0A				Green	22.0A	45.0A	
Yellow/AR	4.0				Yellow/AR	4.0	4.0	

Cycle Length: 96 secs Phase combination order: #1 #5 #6

Intersection Performance Summary

	Lane Group: Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	332	1770	0.802	0.188	33.1	D	32.5	D
	R	297	1583	0.047	0.188	20.7	C		
NB	L	424	1770	0.828	0.240	31.2	D	18.7	C
	T	1397	1863	0.190	0.750	2.3	A		
SB	TR	783	1635	0.841	0.479	19.9	C	19.9	C

Intersection Delay = 21.7 sec/veh Intersection LOS = C
Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.829

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